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BONNEY VISES and WRENCHES



CATALOG Nº 21

ESTABLISHED 1876



Bonney Vise & Tool Works

Incorporated

Allentown · Pennsylvania · U · S · A

Catalogue No. Twenty-one

A Reference Book on Vises and Wrenches of All Kinds

GENERAL TRADE MARKS
REGISTERED IN U. S. PATENT OFFICE



"BONNEY"



Other Trade Marks Referring to Special Tools are Not Shown Here

Philadelphia Office, 405-406 Stephen Girard Building Factory Cable Address, "Bonnevise," Allentown, Western Union Code

CATALOG TWENTY-ONE

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BONNEY VISE & TOOL WORKS ALLENTOWN, PA.

MEMBERS

AMERICAN HARDWARE MANUFACTURERS' ASSOCIATION and AUTOMOTIVE EQUIPMENT ASSOCIATION









Terms

Invoices payable only in New York City par funds with no allowance for exchange.

All goods delivered F. O. B. cars Allentown without charge for packing, except special packing for export.

An additional charge will be made on all shipments direct from factory to dealer's customer, also all parcel post or small express shipments. This charge will not apply on orders for repairs or parts.

A handling charge of 10% will be made on all goods returned except when, in our judgment, the goods are defective.

Any promises or commitments in relation to quotations or orders are subject to any acts or demands of the United States Government, and to strikes, fires, accidents, freight embargoes, car shortage, labor shortage and all other causes beyond our control, and no liability will be incurred by us for damages resulting from delay or failure in deliveries due to any of said causes.

Printed matter and electrotypes of stock goods furnished customers without charge.

List prices used in this catalog should not be construed as resale prices, because there may be instances where, owing to present conditions, it may be found necessary to equal or exceed the prices herein shown.

BONNEY VISE & TOOL WORKS, INC. ALLENTOWN, PA., U. S. A.





BONNEY STILLSON WRENCHES

Practically every car owner and every repairman has use for one or more sizes of Stillson Wrenches







Jaw

F----

Wooden Handle

BONNEY STILLSON WRENCHES are all forged from the highest grade tool steel, and are interchangeable with similar wrenches. Each wrench is thoroughly tested and is absolutely warranted in every way. 6" to 18" sizes inclusive, furnished in wood or steel handle. 24" 36" and 48" sizes steel handle only.

PRICE LIST

Length, open	6	8	10	12	14	18	24	36	48
Takes pipe	1/8-1/2	1/8-3/4	1/8-1	14-114	1/4-11/2	1/4-2	1/4-21/2	1/4-31/2	1-5
Price each	\$2.00	\$2.25	\$2.50	\$3.00	\$3.50	\$5.00	\$7.25	\$13.50	\$20.00
Extra jaws	.75	.80	.85	1.00	1.15	1.75	2.25	4.35	7.50
Extra frames	.38	.42	.50	.60	.60	.75	.95	1.70	2.20
Steel handles	.95	1.00	1.00	1.35	1.50	2.25	3.50	7.00	10.50
Nuts	.12	.15	.20	.30	.30	.35	.55	1.10	1.50
Springs No. of springs each	.10	.10	.10	.10	.10	.10	.11	.13	.13
wrench	1	1	3	3	3	3	3	1	1
Frame pins	.03	.03	.04	.04	.04	.04	.04	.05	.05
Spring pins	.01	.01	.02	.02	.02	,02	.02	.02	.02
End nuts	.15	.15	.20	.20	.20			1	
Ferrule	.10	.10	.12	.15	.15				

All sizes of Stillson Wrenches from 6" to 14", inclusive, are packed in individual cartons, six cartons in a container.

EXPORT PACKING OF STILLSON WRENCHES

Size	No. to Case	Net Wt. lbs.	Gross Wt. lbs.	Measurements
6"	72	24	28	13% x 7½ x 85
8"	72	47	52	16 x 8½ x 9½
10"	72	108	122	221/4 x 121/2 x 14
12"	72	192	212	24½ x 14 x 14
14"	72	204	224	24½ x 15¾ x 15¾
18"	54	243	224 267	21½ x 15 x 18
24"	24	200	221	27 x 13 x 151
36"	6	90	100	35 x 8½ x 63
14" 18" 24" 36" 48"	6	144	160	45 x 10½ x 7½

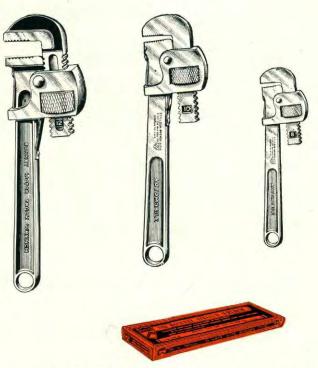






BONNEY MOTOR STILLSONS

Three Special Automobile Models and a 12" Motor-Truck Model







Bonney Automobile Stillsons have extra thin, closely milled jaws with fine teeth, and are the only wrenches of this type designed especially for use on automobiles and finely finished machinery.

Owners of automobiles and motor-cycles, also repairmen, are quick to see and appreciate the fact that these are not ordinary tools.

We have a special descriptive folder on these wrenches.

	Takes Round Part	Length Open	Price Each
6" Motor-Cycle Stillson Wrench	½ to ½	6"	\$2.00
8" Automobile Stillson Wrench	1/8 to 7/8	8"	2.25
10" Automobile Stillson Wrench	1 to 114	10"	2.50
12" Motor-Truck Stillson Wrench (Heavy Jaw)	1/4 to 11/2	12"	3,00









BONNEY ADJUSTABLE "S" NUT WRENCH

This is a most useful wrench and should be in every autoist's kit. With this wrench it is possible

to adjust nuts where many other

wrenches fail.



PATENTED

BONNEY Adjustable "S" NUT Wrenches are designed, primarily, for utility, but in their construction every care has been taken to produce not only strength and durability, but also balance and beauty. The sliding jaw is a drop-forging and the long or fixed jaw is made of the highest grade of malleable iron. All parts are interchangeable. The handle is finished in bright black enamel and the jaws are polished.

PRICE LIST

Size, inches	6	8	10	12	14
Opens to	\$8.00 5 lbs.	1" \$10.00 12 lbs.	$\frac{1\frac{3}{8}''}{\$12.00}$ \$12.00	15%" \$18.00 32 lbs.	2" \$24.00 56 lbs.

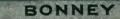
EXPORT PACKING OF ADJUSTABLE "S" NUT WRENCHES

Size, in.	No. to case	Net Wt. lbs.	Gross Wt. lbs.	Measurements
6	24 doz.	120	141	22½ x 10 x 16
8	24 "	288	333	$35\frac{3}{4} \times 16\frac{1}{2} \times 13$
10	15 "	315	360	$35\frac{3}{4} \times 16\frac{1}{2} \times 13$
12	6 "	192	230	$24\frac{1}{4} \times 15\frac{3}{4} \times 15\frac{3}{4}$
14	3 "	168	203	32 x 17 x 9

NET PRICE LIST OF PARTS FOR ADJUSTABLE "S" NUT WRENCHES

Size, inches	6	8	10	12	14
Jaw	\$0.15	\$0.17	\$0.20	\$0.30	\$0.40
Thumb Nut	.06	.06	.10	.11	.12
Screw for Thumb	.03	.03	.03	.03	.03









BONNEY ADJUSTABLE "S" PIPE WRENCH



BONNEY Adjustable "S" Pipe Wrenches are similar in material and finish to the Adjustable "S" Nut Wrenches described on the opposite page. The sliding jaw, however, is milled with teeth correctly cut to grip both pipe and round iron, and the long jaw is constructed on an angle of correct degree to prevent locking of the wrench when used on particularly difficult work. As in the case of the Adjustable "S" NUT Wrench the parts are interchangeable and the milled jaw can be replaced without difficulty.

PRICE LIST

Size, inches	t .	8	10	12	14
Grips Price, per doz Weight per dez.	½ Wire to ½ pipe \$8.00 5 lbs.	½ Wire to ½ pipe \$10.00 13 lbs.	½ Wire to 1 pipe \$12.00 22 lbs.	1/8 Wire to 1/4 pipe \$18.00 33 lbs.	1/2 Wire to 11/2 pipe \$24.00 57 lbs.

EXPORT PACKING OF ADJUSTABLE "S" PIPE WRENCHES

Size	No. to case	Net Wt., lbs.	Gross Wt., lbs.	Measurements
6	24 doz.	120	141	22½ x 10 x 16
8	24 "	312	357	$35\frac{3}{4} \times 16\frac{1}{2} \times 13$
10	15 "	330	375	$35\frac{3}{4} \times 16\frac{1}{2} \times 13$
12	6 "	198	236	241 x 153 x 15
14	3 "	171	206	32 x 17 x 9

NET PRICE LIST OF PARTS FOR ADJUSTABLE "S" PIPE WRENCHES

Size, inches	6	8	10	12	14
Jaw	\$0.15	\$0.17	\$0.20	\$0.30	\$0.40
Thumb Nut Screw for	.06	.06	.10	.11	.12
Thumb Nut.	.03	.03	.03	.03	.03







BONNEY COMBINATION PIPE AND NUT WRENCH



Nos. 43 and 44, Short Nut

This wrench is strongly and carefully made, is thoroughly tested in every way and is warranted perfect in material and workmanship. The long jaw and shank is a solid drop-forging. The slide is of highest grade malleable iron and the toggle is drop-forged of special analysis tool steel.

All parts are properly hardened and are interchangeable with BONNEY and similar wrenches. It is especially adapted to the uses of Farmers and Oil-well Operators, to whom the added weight of separate tools would be particularly undesirable.

LIST PRICE, No. 43, POLISHED SHORT NUT

Size	Capacity	Price per doz.	Weight per doz
8"	1" to 3"	\$25.00	15 lbs.
10"	1" " 1"	28.00	25 "
12"	4" " 13"	34.00	36 "
15"	2" " 24"	45.00	52 "
18"	1" " 3"	82.00	81 "

All sizes except 18 in. packed $\frac{1}{2}$ doz. in a wooden box.

List Price, No. 44, Black Same As Above

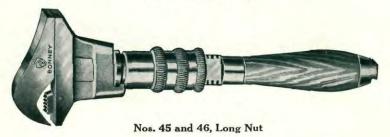
COMBINATION PIPE AND NUT WRENCHES ARE PACKED FOR EXPORT AS FOLLOWS:

Size	No. to Case	Net Wt. lbs.	Gross Wt. lbs.	Measurements
8"	6 doz.	96	115	18 x 8 x 20
10"	6 "	162	188	32 x 12 x 9
10" 12" 15"	6 "	240 216	275 256	35 x 14 x 10
18"	2 "	180	220	29 x 18 x 12 38½ x 21 x 8½





BONNEY COMBINATION PIPE AND NUT WRENCH



Combination Wrench No. 46 is exactly the same in every particular as No. 44, with the one exception that the adjusting nut is made in the form of a knurled sleeve instead of the short nut. The knurled sleeve forms a covering for the screw on which the adjusting nut operates and thus protects the thread from bruises and other damage which might easily happen to the screw, by either dropping the wrench on stone or cement or by dropping some heavy article on the wrench.

LIST PRICE, No. 45, POLISHED LONG NUT

Size	Capacity	Price per doz.	Weight per doz
8"	1" to 3" 4" to 4" 4" " 13" 2" " 21" 1" " 21" 2" " 3"	\$27.00	16 lbs.
10"		30.00	25 "
12"		36.00	38 "
15"		48.00	55 "
18"		87.00	84 "

All sizes except 18 in. packed $\frac{1}{2}$ doz. in a wooden box.

List Price, No. 46, Black Same As Above

COMBINATION PIPE AND NUT WRENCHES PACKED FOR EXPORT AS FOLLOWS:

Size	No. to Case	Net Wt. lbs.	Gross Wt. lbs.	Measurements
8" 10" 12" 15"	6 doz.	96	115	18 x 8 x 20
10"	6 "	162	188	32 x 12 x 9
15"	4 "	240 216	275 256	35 x 14 x 10 29 x 18 x 12
18"	2 "	180	220	38½ x 21 x 8½



BONNEY "HERCULES" SCREW WRENCHES

Itsens dunity herculus

ALLETONS IA

Bonney Hercules Screw Wrenches are made of the best grade of steel and malleable iron. The long jaw is a drop-forging and the sliding jaw and handle frame are malleable iron. All parts are carefully machined to an accurate fit and are interchangeable. The jaws are case hardened to withstand wear.

These wrenches are warranted against any defects in workmanship and material and against breakage from any cause, except abuse.

They are wrapped one-half dozen to a bundle in sizes 6" to 12", inclusive. 15" and 18" are wrapped one-third in a bundle and the 21" are wrapped one in a bundle.

PRICE LIST AND DOMESTIC PACKING

Weight per doz 8½ lbs. 15 24 Weight per case 58 102 165	2½4″ 39 265 \$28,00	2 ⁸ / ₄ " 57 190 \$38.00	31/8" 82 184 \$48,00	4½" 104 124 \$58,00
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6". 8", 10"; 12" packed 6 doz. to case.

18" packed 2 doz. to case. 21" " 1 " " "

EXPORT PACKING

Size	Quantity	Net Wt., lbs.	Gross Wt., lbs.	Measurements
6"	6 doz.	51	61	17 x 85 x 71
8"	6 "	90	110	21 x 10 x 8
10"	6 "	144	175	233 x 12 x 93
12"	6 "	234	275	26 x 143 x 11
15''	3 "	171	200	191 x 18 x 93
18''	2 "	164	184	22 x 13½ x 10
21"	1 "	104	124	243 x 14 x 61



BONNEY AUTOMOBILE WRENCH



This wrench is strongly constructed for automobile and motor boat use. It is made of a drop forged steel long jaw and a malleable iron sliding jaw with steel adjusting nut. The overall length is 9'' and opening 2". Jaws are $1\frac{1}{4}$ " wide and $3\frac{1}{4}$ " thick. Black and polished finish. Packed 1 gross in a case; weight 156 lbs. Price per dozen, \$12.00.



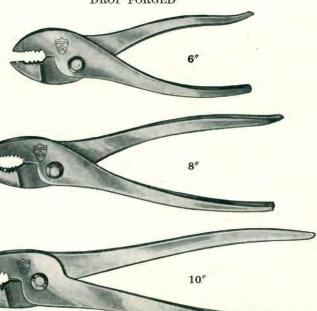






BONNEY COMBINATION PLIERS

DROP FORGED



Bonney Combination Pliers are drop-forged from high carbon steel, are carefully machined, hardened and polished. They are made in two finishes; Polished and Nickel Plated, and Blued. Each Plier combines a regular plier, wire cutter and screw driver.

The opening of the jaw can be enlarged to a very wide capacity by turning the handle slightly and by sliding the rivet from one hole to

the other.

These pliers are used generally by mechanics of all kinds. They have become absolutely indispensable about an automobile or motor-cycle.

They are packed in individual cardboard cartons.

PRICE LIST

Size	Capacity	Polished and Nickel Plated	Blued
5''	½" pipe	\$10.00	\$9.00
6''	3/4" pipe	15.00	13.50
8''	1'' pipe	18.00	16.00
10′′	1½" pipe	21.00	18.00

PACKED FOR EXPORT

No. to case	Net Weight, lbs.	Gross Wt., lbs.	Measurements
24 doz.	72	84	14 x 6 x 6
24 "	160		$30 \times 17 \times 9\frac{1}{4}$
12 "			$30 \times 10\frac{1}{4} \times 19$ $24 \times 12\frac{1}{2} \times 17$
	24 doz. 24 " 24 "	24 doz. 72 24 " 160 24 " 198	24 doz. 72 84 24 " 160 195 24 " 198 240







BONNEY "THIN" WRENCHES

STAMPED STEEL





Bonney "Thin" Wrenches are packed in sets as follows:

Weight per set either in cardboard box or canvas case, 1 lb. 6 oz. Packed 1 gross sets in a case.

Bonney "Thin" Wrenches are especially designed for Lock Nuts, Check Nuts, and for Automobile use. They are stamped from special analysis steel and are hardened all over. They are made in Semi-finished, with polished heads.

No.	Openings Inches	Length Inches	Weight per doz.	Price each Semi-finished
110	1/4 & 5	43/8	11 oz.	\$0.10
120	3/8 & 7	5	1 lb. 7 oz.	.14
130	1/2 & 3/16	61/4	2 " 3 "	.18
140	5% & 34	73/4	5 " 1 "	.25
150	7/8 & 1	95%	6 " 5 "	.33

Packed 1 gross in a case.

EXPORT PACKING OF BONNEY "THIN" WRENCHES

No. of sets to case	Net Weight	Gross Weight	Measurements
100	138 lbs.	173 lbs.	24 x 15 x 15







DESCRIPTION OF FINISHES BONNEY DROP-FORGED WRENCHES



UNFINISHED Wrench Forgings are milled only, not hardened.



SEMI-FINISHED Wrench Forgings are milled, hardened, the body finished in a pleasing black enamel, and ends are polished.

We particularly recommend and suggest this finish.

In ordering, be sure to specify finish desired. When no finish is specified, we will ship Semi-finished Wrenches.



FINISHED Wrench Forgings are milled, polished all over, case hardened, given a black satin finish and lacquered, heads bright.

Special millings to other standards and openings not listed, to order.





BONNEY No. 60

Drop-Forged Wrench Assortment contains the following drop-forged wrenches, which have been found to be the sizes and designs for which there is the greatest demand.

GENERAL PURPOSE WRENCHES



221/2° Angle

Quantity	No.	Openings Finished Inches	Extreme Length Inches	Price Each Special Semi- Finished	Total
3 3 3	500	3/8 & 1/2	614	\$0.27	\$0.81
	502	5/8 & 3/4	814	.43	1.29
	504	7/8 & 1	1038	.70	2,10 \$4,20

ENGINEERS' WRENCHES



Quantity	No.	For U.S. Standard Nuts; Size Bolts	Openings Milled	Extreme Length	Price Each Sp'l Semi- Fin.	Total
3333333	21 23 25 27 29 31 34	1/8 & 3/16 1/4 & 3/16 1/4 & & 3/16 1/4 & & & 1/2 1/2 & & 5/8	5 & & 131 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 16 17 17 16 17 17 17 17 17 17 17 17 17 17 17 17 17	31/4 4 7/8 57/8 67/8 73/4 93/4	\$0.17 .21 .25 .31 .37 .45	\$0.51 .63 .75 .93 1.11 1.35 2.04 \$7.32
30						\$11.52

All wrenches are double-head. The openings of the General Purpose Wrenches are inclined at an angle of 22½ degrees, while those of the Engineers' Wrenches are inclined to a 15-degree angle. Each wrench is hardened and the ends are ground and polished. The bodies are finished in dead-black

enamel.

The display board is designed to hold three wrenches of each size, a total of thirty wrenches. The number is found at the side of the hooks pro-

The number is found at the side of the nooks provided for each size.

Size of display board, 7½ x 26 inches.

Each assortment of thirty wrenches and display board in a separate box. Refills for the display boards may be purchased separately.

Shipping weight of display board and thirty wrenches, 20 pounds. Shipping weight of refills, thirty wrenches, 15 pounds.

Price, Assortment No. 60, complete \$12.50 Price, Refill 30 Wrenches, without board ... 11.52

Packed in units of six

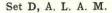
MARK



A. L. A. M. AND S. A. E. SETS

DROP FORGED







Sets 5 and 5S, A. L. A. M. and S. A. E.

SET D—Contains 5 Wrenches, for A. L. A. M. Standard Nuts and Cap Screws, one each of the following:

No.	For A. L. A. M. Stand- ard Nuts and Cap Screws, Size of Bolts, or Cap Screws	Openings Finished, Inches	Extreme Length, Inches	Semi- finished	No.
500 502A 503 504A 505C	1/4 & 5 1/6 1/6 1/2 & 1/6 1/2 & 9 1/6 1/6 1/6 1/6 1/6 1/6 1/6 1/6	3/8 & 1/2 9/16 & 11/16 3/4 & 1/8 15/6 & 1	$ \begin{array}{r} 6\frac{1}{4} \\ 8\frac{1}{4} \\ 9\frac{1}{4} \\ 10\frac{3}{8} \\ 12 \end{array} $	\$0.27 .43 .55 .70	500 502A 503 504A 505C

Packed one set in cardboard box, \$2.95; one set in wooden box, \$3.11; one set in canvas roll, \$3.40.

SET 5—Contains 5 Straight Bar Wrenches, with 15° Angle, for A. L. A. M. Standard Nuts and Cap Screws:

No.	For A. L. A. M. Standard Nuts and Cap Screws, Size of Bolts, or Cap Screws	Openings Finished, Inches	Extreme Length, Inches	Semi- finished	No.
723A 27C 731A	1/4 & 5/6 3/8 & 7/16 1/2 & 9/16	3/8 & 1/2 9/16 & 11/6 3/4 & 7/8	$ \begin{array}{c} 4 \\ 5\frac{7}{8} \\ 7\frac{3}{4} \end{array} $	\$0.21 .31 .45	723 A 27 C 731 A
33C 737	5/8 & 11 3/8 7/6	15 & 1 11/2 & 11/4	8 ³ / ₄	.55	737

Packed one set in cardboard box, \$2.48; one set in wooden box, \$2.64; one set in canvas roll, \$2.93.

SET 5S—Contains 5 Straight Bar Wrenches, with 15° Angle for S. A. E. Standard Nuts and Cap Screws:

No.	For S. A. E. Standard Nuts and Cap Screws, Size of Bolts, or Cap Screws	Openings Finished, Inches	Extreme Length, Inches	Semi- finished	No.
725 727 731A 33C	14 & 5 38 & 7 18 & 16 12 & 9 58 & 116	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	47/8 57/8 73/4 83/4	\$0.25 .31 .45 .55	725 727 731A 33C 37

Packed one set in cardboard box, \$2.52; one set in wooden box, \$2.68; one set in carvas roll, \$2.97.

Bulk weight of above sets about 4 lbs. each.

The above are only three of numerous sets that we manufacture.



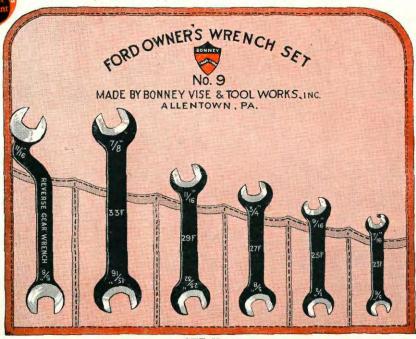




A COMPLETE DROP FORGED SET OF WRENCHES FOR FORD CARS

This set consists of six wrenches which contain openings especially milled to fit every nut on a Ford car. There are five straight-bar, 15°-angle wrenches of a new and strong design. Also a thin wrench, with offset bar, for the reverse gear and brake adjustments.

This is a complete set and should have a ready sale to every Ford owner. We recommend offering this set in Canvas Roll, the most practical way for the purchaser to keep tools in handy and workable condition.



SET No. 9

No.	Openings	For Nuts and	l Cap Screws	Length Inches	Seml. Finished	No.
23F	3/8 & 7/16	$\begin{cases} \frac{1}{4} \text{ A. L. A. M.} \\ \frac{3}{16} \text{ Cap Screw} \end{cases}$	14 S. A. E. 14 Cap Screw }	41/4	\$0.21	23F
25F	$\frac{1}{2}$ & $\frac{9}{16}$	$\begin{cases} \frac{5}{16} \text{ A. L. A. M.} \\ \frac{5}{16} \text{ S. A. E.} \\ \frac{5}{16} \text{ Cap Screw} \\ \frac{1}{4} \text{ U. S. S.} \end{cases}$	3/8 A. L. A. M. 3/8 S. A. E. 3/8 Cap Screw	5	.25	25F
27F	5/8 & 3/4	$\begin{cases} \frac{7}{16} \text{ S. A. E.} \\ \frac{7}{16} \text{ Cap Screw} \end{cases}$	1/2 A. L. A. M. 1/2 S. A. E. 1/2 Cap Screw	6	.31	27F
29F	$\frac{11}{16}$ & $\frac{25}{32}$	$\begin{cases} \frac{7}{16} \text{ A. L. A. M.} \\ \frac{9}{16} \text{ A. L. A. M.} \end{cases}$	7 U.S.S. 5/8 A. L. A. M.)	$6\frac{3}{4}$.37	29F
.33F	7/8 & 15/16	16 A. L. A. M. 916 S. A. E. 58 Cap Screw 1/2 U. S. S.	5% S. A. E.	9	.55	33F
Reverse gear 100F	$\left\{ \frac{5}{8} \& \frac{11}{16} \right\}$	C/2 U.S.S.	,	83/4	.53	Reverse gear 100F

Packed in cardboard boxes, \$2.50 per set; or in canvas rolls, \$2.75 per set. Weight 21/4 lbs. per set, 1 gross sets in a case









BONNEY A. L. A. M.-S. A. E. SET 32

221/2° Angle

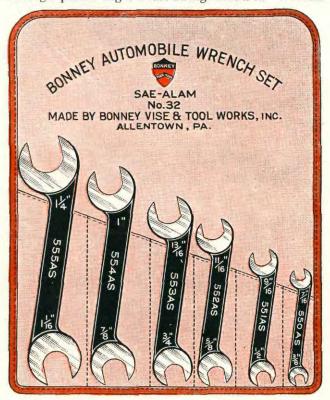
The best open-end Automobile Wrench Set made, correct in shape, size and angle.

Handy and efficient in close quarters that will not permit the use of ordinary wrenches.

Covers thirty-two of the most commonly used nuts and cap

screws from \(\frac{1}{4}\)" to \(\frac{7}{8}\)". Openings running from \(\frac{3}{8}\)" to \(\frac{1}{4}\)".

Preferred by many because of the degree at which the opening is set, the angle permitting a wider swing than a 15° Wrench.



					FI	TS		
No.	Openings	Length	Semi- Finished	SAE	ALAM	U. S. Bolt Size	Hex. Cap	No.
550AS 551AS 552AS 553AS 554AS	$\begin{array}{c} 3 & 8X & \frac{7}{16} \\ 1 & 2X & \frac{9}{16} \\ 5 & 8X & \frac{11}{16} \\ 3 & 4X & \frac{13}{16} \\ 7 & 8X & 1 \end{array}$	$4\frac{3}{4}$ $5\frac{3}{4}$ 7 $8\frac{1}{4}$ $9\frac{1}{2}$	\$0.25 .31 .40 .53 .72	$ \begin{array}{r} $	$\begin{array}{c} 1_{4}X \\ \frac{5}{16}X^{3}/8 \\ x\frac{7}{16} \\ 1/2X \\ \frac{9}{16}X\frac{11}{16} \end{array}$	1/4x x ³ /8	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	550AS 551AS 552AS 553AS 554AS

Packed in cardboard boxes, \$3.50 per set; or canvas rolls, \$3.75 per set. Weight about 51/2 lbs. per set, one gross sets in the case







A. L. A. M. WRENCHES

DROP FORGED



Illustration shows 550 A. L. A. M. Line

Correct in Shape and Angle.

221/20

An especially desirable line of Automotive Wrenches, covering principal A. L. A. M., S. A. E. and U. S. Standard Nuts, also Hexagon Cap Screws from ½" to 1", as shown in table.

	Size of	Length		F	ITS		List	
No.	Openings Inches	Over All Inches	A.L.A.M.	S. A. E.	Hex. Cap	U. S. S. Bolt Size	Semi- Finish	No.
550 ALAM 551 ALAM 552 ALAM 553 ALAM 555 ALAM	$\frac{9}{16}X_{16}^{11}$ $\frac{3}{4}X_{8}^{7}$ $\frac{15}{16}X_{1}^{1}$	$ \begin{array}{r} 4\frac{1}{2} \\ 5\frac{3}{4} \\ 7 \\ 8 \\ 10\frac{1}{2} \end{array} $	$\begin{array}{c} 1/4 \times \frac{5}{16} \\ 3/8 \times \frac{7}{16} \\ 1/2 \times \frac{9}{16} \\ 5/8 \times \frac{11}{16} \\ 3/4 \times \frac{7}{8} \end{array}$	$X_{\overline{16}}^{\overline{5}}$ $\overline{3}_{8}^{8}X$ $\overline{1}_{2}^{9}X_{\overline{16}}^{\overline{16}}$ $\overline{5}_{8}^{1}X_{\overline{16}}^{\overline{16}}$ \overline{X}_{8}^{7}	$\begin{array}{c} \frac{3}{16}x\frac{5}{16} \\ \frac{3}{8}x \\ \frac{1}{2}x\frac{5}{8} \\ \frac{x^{3}4}{7_{8}x1} \end{array}$	x ¹ / ₄ x ³ / ₈ x ¹ / ₂ x ³ / ₄	\$0.25 .31 .40 .53 .96	550 ALAM 551 ALAM 552 ALAM 553 ALAM 555 ALAM

These wrenches can be sold in sets, one each of the above sizes packed in cardboard boxes, listing at \$2.45 per set or in canvas rolls, listing at \$2.90 per set. Weight about 4 lbs.



8

2/16/5

× ×

100

×

12

553ALAM

733 33C 34 735 736 37

504B 504A

554AS

10 84 84 10 14 14





3

1

2000

15/8

× ×

× × × Nut : :

10/20/20

*

a: :

:

will

opening

: 3

Nut

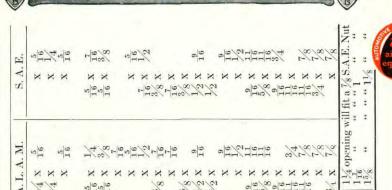
S.A.E.

X Will .

1910

555AS 555ALAM

505B 505C



20/01/01

XXXXXXXXX

XXXX

552ALAM

553AS

731A 731 31

551ALAM

726 27 27 23 23 729 27C

500A 500A 500B 500C 501 501B 501B 502C 502 502B 502B 503B 503B

552AS

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28

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17000

	BES	PAC	M	N	RIPT	FOR PRICES, ETC., SEE LISTS ON DESCRIPTIVE PAGES	ON	LISTS	SEE	ETC	U	CE	PRI	FOR	
	3	24	3	3	4 34	:	1.6		35	91	2	44 46 1	*	**	men
	,,	111	*	3	33	7.5		,,	33	1/6	4	,	3	:	
1	15 opening will fit a 58 S.A.E. N	000	ಡ	fit	will	pening	5 01	Jut	A.E. N	16 5	ಪ	fit	Will	opening will fit a 7 S.A.E. Nut 15 op	None



WRENCHES FOR AUTOMOTIVE PURPOSES

OF DROP FORGED

REFERENCE CHART

FI

Cap.

Hex.

Size

v.

E.S.

Openings

No.

No.

No.

38 9

14 Bolt

×

550ALAM

723A

8 316 - 8 316 - 8 8 316 - 8 8 8

XXXXXX

5 3 5 9

XXXXXX

74740000







SINGLE END ENGINEERS' WRENCHES

DROP FORGED



For U. S. Standard Hexagon Nuts Drop-Forged of Bar Steel 15° Angle

	For U.S. Standard	Opening	Extreme	Thickness	P	RICE EAG	СН	
No.	Nut; Size Bolt	Milled	Length	Head	Unfin- ished	Semi- finished	Finished	No.
00	1 6	5	21	3.	\$0.09	\$0.14	80.22	00
0	3	13	27	7 22	.10	.15	.25	0
1	1	1 2	33	14	.12	.18	.28	1
3	16 3 16 14 4 5 16 38 7 11 1 22 9 16 38 31 4 7 8	$\begin{array}{c} 5 \\ 1 \\ 3 \\ 3 \\ 2 \\ 2 \\ 3 \\ 2 \\ 1 \\ 1 \\ 6 \\ 5 \\ 2 \\ 2 \\ 7 \\ 6 \\ 3 \\ 1 \\ 1 \\ 1 \\ 4 \\ 1 \\ 7 \\ 1 \\ 6 \\ 1 \\ 1 \\ 4 \\ 1 \\ 7 \\ 1 \\ 6 \\ 1 \\ 1 \\ 4 \\ 1 \\ 7 \\ 1 \\ 6 \\ 1 \\ 1 \\ 4 \\ 1 \\ 1 \\ 6 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$	212778 314314 5182 122 122 338 144 5182 122 122 338 144 5182 122 122 338 144	3 16 7 3 2 14 9 3 2 5 16 12 2 2 2 2 7 7 7 7 7 7 7 7 7 7 7 7 7 7	.15	.22	.32	2
3	3	11	55	5	.18	.26	.38	3
4	7 16	25	$6\frac{1}{2}$	11	.22	.32	.45	4
4 5	1 2	7 8	71	13	. 26	.38	.54	2 3 4 5
6	9	31	83	7	.31	.46	. 65	6
7	5 8	116	91/4	1/2	.40	.57	.82	7
7 8 9	34	$1\frac{1}{4}$	111	9 16	. 55	.75	1.05	8
	7 8	$1\frac{7}{16}$	13	16 212 33 4 7 232 239 239	.85	1.15	1.52	9
10	1	15	$14\frac{3}{4}$	3 4	1.20	1.60	2.10	10
11	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	$1\frac{13}{16}$	$16\frac{1}{2}$	27	1.65	2.10	2.80	11
12	11/4	2	181	29	2.20	2.85	3.70	12
13	1 3/8	2 3	20	1	2.80	3.65	4.70	13
14	$1\frac{1}{2}$	2 3 2 16 2 3 8 2 9 16 2 3 4 2 15 2 15	22	$\begin{array}{c} 1\frac{1}{16} \\ 1\frac{1}{8} \\ 1\frac{7}{32} \end{array}$	3.45	4.60	5.80	14
15	15/8	2 9 16	24	11/8	4.15	5.60	7.10	15
16	$1\frac{3}{4}$	234	$25\frac{1}{2}$	$1\frac{7}{32}$	4.90	6.70	8.50	16
$16\frac{1}{2}$	178	215	27	1 32	4.90	6.70	8.50	161
17	2	$3\frac{1}{8}$	$29\frac{1}{2}$	138	7.50	10.25	13.00	17
18	21 21 23 23	$3\frac{1}{8}$ $3\frac{1}{2}$ $3\frac{7}{8}$	33	$1\frac{1}{3}\frac{7}{2}$	11.50	14.75	18.00	18
19	2 1/2	3 7 8	37	18	17.00	21.00	25.00	19
$19\frac{1}{2}$	23	$\frac{4\frac{1}{4}}{4\frac{5}{8}}$	39	13	17.00	21.00	25.00	191
20	3	458	41	18	25.00	31.00	37.00	20
20A	31/4	5	43	1 7 8	25.00	31.00	37.00	20.
20B	$\frac{3\frac{1}{2}}{3\frac{3}{4}}$	5 3 8	51	178	40.00	52,00	64.00	201
20C	34	5 4	51	1 1/8	40.00	52.00	64.00	200
20D	4	618	53	1 1 8	40.00	52.00	64.00	201
20E	4 1/2	$ 5\frac{3}{8} 5\frac{3}{4} 6\frac{1}{8} 6\frac{7}{8} 7\frac{5}{8} $	53	1.37.2 1.56.5.67.67.67.67.67.67.67.67.67.67.67.67.67.	80.00	102.00	124.00	201
20F	5	78	53	18	80.00	102.00	124.00	20



DOUBLE END ENGINEERS' WRENCHES



DROP FORGED





For U. S. Standard Hexagon Nuts. Drop-Forged of Bar Steel. 15° Angle.

-	For U. S. Standard	Openings	Ex-	Thickness	PRI	CE E	ACH	
No.	Nuts; Size Bolts	Milled	treme Length	Head	Unfin- ished	Semi- finished	Fin- ished	No.
21 22 22 24 25 26 27 28 30 31 33 34 41 42 43 44 45 55 55 55 55 55 55 55 57	216 4 4 4 5 6 6 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$\frac{1}{2}\frac{1}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac	$\begin{array}{c} 3\frac{1}{4}\\ 4\\ 4\frac{7}{16} \sqrt{36} $	72 32 44 49 92 92 92 92 92 92 92 92 92 9	\$0.12 .14 .14 .17 .17 .21 .25 .25 .30 .30 .37 .37 .46 .66 .66 .1.00 .1.40 .1.40 .1.90 .1.40 .1.90 .2.60 .3.80 .3.80 .3.80 .3.80 .3.80 .3.90 .3.00 .3.00 .3.00 .3.00 .3.00 .3.00 .3.00 .3.00 .3.00 .3.00 .3.0	\$0.17 .21 .21 .25 .25 .31 .31 .37 .37 .45 .55 .55 .68 .96 .96 .1.40 .1.90 .1.90 .2.65 .2.65 .3.60 .3.60 .5.25 .5.55 .7.00 .9.00 .9.00 .9.00 .1.0	\$0.26 .32 .32 .38 .38 .46 .56 .68 .85 .85 .85 1.08 1.40 1.90 1.90 2.60 2.60 3.50 3.50 3.50 4.70 4.70 6.70 6.70 6.88 8.85 8.85 1.08 1.0	211 222 232 242 252 262 277 288 299 300 311 333 344 445 466 477 488 499 500 511 555 566 575 575









SINGLE HEAD WRENCHES

DROP FORGED



For Hexagon Cap Screws 15° Angle

All stock wrenches are milled to fit standard Hexagon cap screws. Larger or special sizes milled to order.

	For Hex. Head	0 .		Thick-	P	RICE EA	СН	
No.	Cap Screw Diameter of Screws	Openings Finished	Length	ness of Head	Un- finished	Semi- finished	Finished	No.
700	3 16	38	27/8	7 3 2	\$0.10	\$0.15	\$0.25	700
701	316 14 516 1 380 7 16 12 9 16 18 314 7 16	3 80 7 6 122 9 6 15 8 3	$3\frac{3}{4}$	1/4	.12	.18	.28	701
701A	16	$\frac{1}{2}$	343458 12121238 15 6 7 7 8 9	4	.12	.18	.28	701A
702	8	16	43	32	.15	.22	. 32	702
703	16	8	5 8	16	.18	.26	.38	703
704	2	4	62	32	. 22	.32	.45	704
705	16	13 16 7	$7\frac{1}{2}$	64	. 26	.38	.54	705
705A	8	8	7 2	64	.26	.38	. 54	705A
706	34	1	83	16	.31	.46	. 65	706
707	8	1 1/8		64	.40	.57	.82	707
708	1	1 4	$11\frac{1}{8}$	16	. 55	.75	1.05	708
708A	11/8	$1\frac{3}{8}$	$11\frac{1}{8}$	9 3 2 5 6 1112 5 4 5 5 4 7 16 1 6 4 9 16 12 2 3 3 4	.55	.75	1.05	708A
709	$1\frac{1}{4}$ $1\frac{3}{8}$	$1\frac{1}{2}$ $1\frac{5}{8}$	13	32	.85	1.15	1.52	709
710	18	18	$14\frac{3}{4}$	4	1.20	1.60	2.10	710







DOUBLE HEAD WRENCHES

DROP FORGED



For Hexagon Cap Screws 15° Angle

No.	For Hex. Head Cap Screws.	Openings	Length	Thickness	PRI	CE E	CH	No.
1,0.	Diameter of Screws	Finished		of Head	Unfin- ished	Semi- finished	Fin- ished	140.
21	1 & 3 1 &	$\begin{array}{ccc} \frac{5}{16} & & \frac{3}{8} \\ \frac{5}{16} & & \frac{7}{16} \end{array}$	314	$\frac{5}{32}$ & $\frac{3}{16}$	\$0.12	\$0.17	\$0.26	721
722	8 & 1/4	5 & 7 16 & 7	4	32 & 1	.14	.21	.32	722
23	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\frac{3}{8}$ & $\frac{7}{16}$	4	32 & 1	.14	.21	.32	723
23A	18 & 316 & 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	56 & 57 16 6 6 7 16 6 6 7 16 6 6 7 16 6 6 7 16 6 6 7 16 6 6 7 16 6 6 7 16 6 6 7 16 6 6 7 16 6 6 7 16 6 6 7 16 6 6 7 16 6 6 7 16 6 6 7 16 6 6 7 16 6 6 7 16 6 6 7 16 6 6 7 16 6 7 16 6 7 16 6 7 16 7	4	$\frac{7}{32} & \frac{1}{4} \\ \frac{7}{32} & \frac{1}{4} \\ \frac{7}{32$.14	.21	. 32	723.
24	3 & 3 16 & 8	3 & 9 16	4 7 8	7 & 9 32 & 32	.17	.25	.38	724
25	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccc} \frac{7}{16} & & \frac{1}{2} \\ \frac{7}{16} & & \frac{9}{16} \end{array}$	4 7 8	1 & 9 32	.17	.25	.38	725
25A	1 & 3 8	7 & 9 16	4 7 8	1 & 9 3 2	.17	.25	.38	725
25B	16 & 3 8	$\frac{1}{2}$ & $\frac{9}{16}$	4 7 8	1 & 9 32	.17	.25	.38	7251
26	16 & 7 16	½ & 5 8	$5\frac{7}{8}$	$\frac{1}{4}$ & $\frac{5}{16}$.21	.31	.46	726
27	3 & 7	\$\frac{9}{16} & \frac{4}{3} & \frac{1}{3} &	$\begin{array}{c} 478 \\ 4878 \\ 4878 \\ 4878 \\ 5878 \\ 5878 \\ 6878 \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$.21	.31	.46	727
28	$\frac{3}{8}$ & $\frac{1}{2}$ $\frac{7}{16}$ & $\frac{1}{2}$	16 & 3	6 8	9 & 11 32 & 32	.25	.37	.56	728
29	16 & 1	8 & 4	678	$\frac{5}{16} & \frac{11}{32}$.25	.37	.56	729
730	7 16 & 9 16	5 & 13 16	7 4 1	$\begin{array}{c} 5 \\ 16 & & 25 \\ 16 & & 64 \\ \hline 11 \\ 32 & & 64 \\ \end{array}$.30	.45	. 68	730
31	1 & 9 1 6	3 & 13 16	7 4	32 & 25 64	.30	.45	. 68	731
31A	1 & 5	3 & 7 8	74	11 & 25 32 & 64	.30	.45	.68	731.
31B	9 & 5 16 & 3	13 & 7 16 & 8	$ 7\frac{3}{4} \\ 7\frac{3}{4} \\ 7\frac{3}{4} \\ 8\frac{3}{4} \\ 8\frac{3}{4} $	$\frac{11}{32} & \frac{25}{64}$.30	.45	,68	731
32	1 & 3	3 & 1	84	32 & 16	.37	.55	.85	732
/32A	9 & 3 16 & 3	13 & 1	84	$\frac{11}{32} & \frac{7}{16}$.37	.55	.85	732
733 734	916 & & & & & & & & & & & & & & & & & & &	7 & 1 7	83	5 & 264 5 & 264 112 & 264 123 & 264 132 & 664 132 & 7 167 132 & 7 164 132 & 31 132 & 31 134 & 3	.37	.55	.85	733
	5 & 7 8 & 7		93	64 & 31 7	:46	.68	1.08	734
35 36	3 & 7 3 . 1	1 & 11	$9\frac{3}{4}$	$\frac{7}{16} & \frac{31}{64}$.46	.68	1.08	735
37	3 & 1 7 & 1	1 & 14	$\frac{11\frac{5}{8}}{11\frac{5}{8}}$	$\frac{7}{16} & \frac{9}{16}$.66	.96	1.40	736
38	716 & 916 116 29 & 116 212 & 216 212 & 216 212 & 216 213 & 214 214 216 & 214 214 216 & 214 214 216 & 214 216 216 & 214 216 216 & 214 217 217 218 217 218 217 218 217 218 217 218 218 218 218 218 218 218 218 218 218	$1\frac{1}{8}$ & $1\frac{1}{4}$ $1\frac{1}{8}$ & $1\frac{3}{8}$	$11\frac{8}{8}$ $13\frac{1}{2}$	$\begin{array}{c} \frac{31}{64} & \frac{9}{16} \\ \frac{1}{64} & \frac{21}{32} \\ \frac{1}{2} & \frac{21}{32} \\ \frac{9}{16} & \frac{21}{32} \\ \frac{9}{16} & \frac{21}{32} \end{array}$.66	.96	1.40	737 738
39	1 & 1 1 8		$13\frac{1}{2}$	$\begin{array}{c} 1 \\ 2 \\ 4 \\ 32 \\ 9 \\ 16 \\ 4 \\ 32 \\ 9 \\ 16 \\ 4 \\ 32 \\ 2 \end{array}$	1.00	1.40	1.90	739
39A	1 & 18	$1\frac{1}{4}$ & $1\frac{3}{8}$ $1\frac{1}{4}$ & $1\frac{1}{2}$	$13\frac{1}{2}$ $13\frac{1}{2}$	$\frac{9}{16} & \frac{21}{32} \\ 9 & 21$	1.00	1.40	1.90	
39B	1 & 14	$1\frac{1}{4}$ & $1\frac{1}{2}$ $1\frac{3}{8}$ & $1\frac{1}{2}$	$13\frac{1}{2}$ $13\frac{1}{2}$	$\frac{9}{16} & \frac{21}{32} \\ \frac{9}{16} & \frac{21}{32}$	1.00	1.40	1.90	739
UID	18 00 14	18 & 12	102	16 & 32	1.00	1.40	1.90	139





DOUBLE HEAD "S" WRENCHES

DROP FORGED



For U. S. Standard Nuts, 2210 Angle

A SHORT, HEAVY TOOL FOR HARD USAGE

In Stock with openings for U. S. Standard Finished Nuts; A. L. A. M., S. A. E. and Whitworth Standard also Metric Measure to order.

Num-	For U.S. Standard	Openings,	Extreme	Thickness	PR	ICE EAC	СН	Num
ber	Nuts; Size Bolts	Milled	Length	Heads	Un- finished	Semi- finished	Fin- ished	ber
661 A 661 B 661 C	1 & 3 16 16 16 16 16 16 16 16 16 16 16 16 16	5 & 13 16 & 32 5 & 2 16 & 2 13 & 2	4 4 4	9 32 9 32 9 32	\$0.15 .15 .15	\$0.22 .22 .22	\$0.32 .32 .32	661A 661B 661C
662A 662B 662C	3 & 5 16 & 16 1 & 16 1 & 3	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5 5 5	16 5 16 5 16	.20	.29 .29 .29	.42 .42 .42	662A 662B 662C
663 A 663 B 663 C	\$ & \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	19 & 11 19 & 25 32 & 32 16 & 25 16 & 25	61 61 61 61	solar se la contra	.27 .27 .27	.39 .39 .39	.56 .56 .56	663A 663B 663C
664A 664B 664C	3 & 1 7 & 2 76 & 2 76 & 16	11 & 7 16 & 7 32 & 7 32 & 8 25 & 31 32 & 31	7½ 7½ 7½	176 7 16 7	.37 .37 .37	.53 .53 .53	.75 .75 .75	664A 664B 664C
665A 665B 665C	1 & 16 1 & 5 1 & 8	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	9 9 9		.50 .50 .50	.72 .72 .72	1.00 1.00 1.00	665A 665B 665C
666A 666B 666C	16 & 4 5 & 4 8 & 4	$\begin{array}{c} \frac{31}{32} & \& & 1\frac{1}{4} \\ 1\frac{1}{16} & \& & 1\frac{1}{4} \\ 1\frac{1}{16} & \& & 1\frac{7}{16} \end{array}$	$\begin{array}{c} 10\frac{1}{2} \\ 10\frac{1}{2} \\ 10\frac{1}{2} \end{array}$	9 16 9 16 9 16	.74 .74 .74	1.00 1.00 1.00	1.35 1.35 1.35	666A 666B 666C
667A 667B 667C	3 & 7 3 & 1 7 & 1	$\begin{array}{c} 1\frac{1}{4} & \& & 1\frac{7}{16} \\ 1\frac{1}{4} & \& & 1\frac{5}{8} \\ 1\frac{7}{16} & \& & 1\frac{5}{8} \end{array}$	12 12 13	5) 6 5) 6 5) 6	1.10 1.10 1.10	1.45 1.45 1.45	1.90 1.90 1.90	667A 667B 667C
668A 668B 668C	7 & 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	14 14 14	214 421 421 421 431	1.90 1.90 1.90	2.50 2.50 2.50	3.20 3.20 3.20	668A 668B 668C





DOUBLE HEAD "S" WRENCHES

DROP FORGED



For Hexagon Head Cap Screws, $22\frac{1}{2}^{\circ}$ Angle

In stock with openings milled for Hexagon Head Cap Screws; Whitworth Standard and Metric Measure to order. Openings for U. S. Standard Nuts, Square Head.

Num-	For Hexagon Head	Openings,	Extreme	Thickness	PRI	CE EAC	СН	Num
ber	Cap Screws; Diameter Screws	Milled	Length	Heads	Un- finished	Semi- finished	Fin- ished	ber
671A 671B 671C 671D	1 & & 3 8 & 16 8 & 4 3 & 4 16 & 4 16 & 16	5 & 3 5 & 7 16 & 76 3 & 7 8 & 7 16	4 4 4 4	\$7 \$7 \$7 \$7 \$2	\$0.15 .15 .15 .15	\$0.22 .22 .22 .22	\$0.32 .32 .32 .32	671A 671B 671C 671D
672A 672B 672C 672D	1 & 8 16 16 16 16 16 16 16 16 16 16 16 16 16	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5 5 5 5	16 5 16 3 16 3 16 3	.20 .20 .20 .20	.29 .29 .29	.42 .42 .42 .42	672A 672B 672C 672D
673A 673B 673C 673D	\$ & \frac{7}{16}\$ \$\frac{3}{8} & & \frac{7}{16}\$ \$\frac{3}{8} & & \frac{1}{2}\$ \$\frac{7}{16} & & \frac{1}{2}\$ \$\frac{7}{16} & & \frac{1}{2}\$ \$\frac{7}{16} & & \frac{1}{16}\$	9 & 5 9 & 3 16 & 4 8 & 4 5 & 4 5 & 16	61 61 61 61	esjes asjes asjes	.27 .27 .27 .27	.39 .39 .39	.56 .56 .56	673A 673B 673C 673D
674A 674B 674C	1 & 9 16 & 5 16 & 8	3 & 13 3 & 7 15 & 7	7½ 7½ 7½	16 7 16 7 16	.37 .37 .37	.53 .53 .53	.75 .75 .75	674A 674B 674C
675A 675B 675C 675D	9 & 3 16 & 4 008 & 4 10 8 & 10 10 8 & 8	13 & 1 25 & 1 25 & 15 1 & 15	9 9 9	म्हेत्र नृति नृति नृति नृति । वि	.50 .50 .50 .50	.72 .72 .72 .72	1.00 1.00 1.00 1.00	675A 675B 675C 675D
676A 676B 676C	\$\frac{1}{8} & 1 \\ \frac{7}{8} & 1 \\ \frac{7}{8} & 1 \\ \frac{1}{8} \\ \frac{1}	1 & 1½ 1½ & 1½ 1½ & 1½ 1% & 1%	$10\frac{1}{2}$ $10\frac{1}{2}$ $10\frac{1}{2}$	18 18 18	.74 .74 .74	1.00 1.00 1.00	1.35 1.35 1.35	676A 676B 676C
677A 677B 677C	1 & 1½ 1 & 1¼ 1½ & 1¼	1½ & 13 1½ & 1½ 13 & 1½	12 12 12	to also soles	1,10 1,10 1,10	1.45 1.45 1.65	1.90 1.90 1.90	677A 677B 677C







DOUBLE HEAD "S" WRENCHES

DROP FORGED



For Set Screws and Square Head Cap Screws, $22\frac{1}{2}^{\circ}$ Angle

In stock with openings for Set Screws and Square Head Screws; Whitworth Standard and Metric Measure to order.

Num- ber	For Set Screws; Sizes	For Square Head Cap Screws;	Openings, Milled	Length	Tarretenie	Heads	PH	HCE EA	АСН	Number
		Diameter Screws			neads	Un- finished	Semi- finished	Fin- ished		
681 A 681 B 681 C 681 D 682 A 682 B 682 C 682 D 683 B 683 B 683 D 684 H 684 B 684 C 685 A 685 B 685 C 686 A 685 B 686 C 686 B 686 C 686 B 686 C 687 B 687 C 688 B 688 B	1	14 & A.	Andrease Transfer of the state	4444455556667777779999555544414144	**************************************	\$0.15 15 15 15 20 20 20 20 27 27 27 37 37 37 37 37 47 44 110 110 1190 1.90	\$0.22 .22 .22 .29 .29 .29 .39 .39 .39 .53 .53 .53 .53 .53 .53 .53 .53 .53 .53	\$0.32 32.32 42.42 42.56 56.56 75.75 75.75 75.75 1.00 1.35 1.35 1.35 1.35 1.35 1.90 1.90 1.90 3.20	681 A 681 B 681 C 681 D 682 A 682 B 683 C 683 D 683 B 683 C 683 B 684 B 684 B 684 B 685 B 685 C 686 B 686 C 686 B 686 C 686 B 686 C 686 B 686 C 686 B 687 B 687 B 687 B 687 B 687 B 687 B	

Be particular when ordering to state whether unfinished, **semi-finished** or finished are wanted. See page 15 for description.



MARK



DOUBLE HEAD SET SCREW WRENCHES

D. STINE

DROP FORGED



15° Angle

	Cat Canan	Entreme	Thickness	PI	RICE EAC	CH	
No.	Set Screw Sizes	Extreme Length	of Heads	Un- finished	Semi- finished	Finished	No
65	$\frac{3}{16}$ & $\frac{1}{4}$ $\frac{3}{16}$ & $\frac{5}{16}$	33	$\frac{\frac{3}{16}}{\frac{3}{16}}$	\$0.14	\$0.20	\$0.30	65
66	3 & 5 16 & 16	$3\frac{3}{4}$	3 16	, 16	.24	.35	66
67	1 & 5 16	41/2	14	.16	.24	.35	67
68	1/4 & 3/8	$4\frac{1}{2}$	1	. 19	.29	.42	68
69	5 & 3 16 & 3	$5\frac{5}{16}$ $5\frac{5}{16}$	5 16	.19	.29	.42	69
70	5 & 7 16 & 7	$5\frac{5}{16}$	5 16	,24	.35	.52	70
71	14 & 5 16 14 & 3 8 15 & 3 8 16 & 7 16	$6\frac{1}{16}$	38	.24	.35	.52	71
72	3 & ½	$6\frac{1}{16}$	38	.30	.45	.66	72
73	76 & 9 76 & 9 16 & 9 16 & 9 16 & 9 16 & 58 96 & 58	$6\frac{13}{16}$	716	.30	.45	. 66	73
74	7 16 & 9 16	$6\frac{13}{16}$	716	.36	.54	.80	74
75	1 & 9 16	$7\frac{5}{8}$ $7\frac{5}{8}$	1/2	. 36	.54	.80	75
76	1 & 5 8	75	1/2	.44	.65	.96	76
77	9 & 5 16 & 8	$9\frac{1}{16}$	9 16	.44	.65	.96	77
78	9 & 3 16 & 3	$9\frac{1}{16}$ $9\frac{1}{16}$	9 16		.80	1.15	78
79	5 & 3 4	$10\frac{9}{16}$	5 8	. 56	.80	1.15	79
80	5 & 7 R	10 9	5 8	.72	1.00	1.40	80
81	58 & 78 3 & 78	$12\frac{1}{16}$	34	.72	1.00	1.40	81
82	3 & 1	$12\frac{1}{16}$	34	.98	1.30	1.75	82
83	5 10 10 10 10 10 10 10 1	125	4 5 16 5 16 5 16 5 16 7 16 7 16 7 16 7 16	.98	1.30	1.75	83
84	7 & 1½	125	7 8	1.35	1.75	2.25	84

TRIPLE HEAD WRENCHES



	For U.S.	For		Thick-	Pl	RICE EAG	CH	
No.		Set Screws Sizes	Extreme Length	ness Heads	Un- finished	Semi- finished	Finished	No.
894A 894B 894C 894D 894E	$\begin{array}{c} \frac{5}{16}, \frac{3}{8}, \frac{1}{2} \\ \frac{5}{16}, \frac{7}{16}, \frac{1}{2} \\ \frac{3}{8}, \frac{7}{16}, \frac{1}{2} \end{array}$	$\frac{1}{2}$, $\frac{5}{8}$, $\frac{2}{4}$, $\frac{9}{16}$, $\frac{5}{8}$, $\frac{3}{4}$	5 5 5 5 5 5 5 5	තුර තුර පාල පාල තුර	\$0.40 .40 .40 .40 .40	\$0.56 .56 .56 .56	\$0.80 .80 .80 .80 .80	894A 894B 894C 894D



MARK



DOUBLE HEAD TOOL POST WRENCHES



For U. S. Standard Nuts and Set Screws Unfinished wrenches have openings milled and holes broached

No.	U. S. S	End for Standard Nut	Closed End for	Extreme	Thick-				No.
No.	Size Opening Set Screw, Size Milled		ness of Heads	Un- finished	Semi- finished	Finished			
124 129 130 131 132 139 140 143 144	5)55 -1(52 -1(52 -1(52 -1(52 5)50 5)50 5) 4 57) -	116 78 78 78 78 116 116 116 114	9 167 16 15 9 15 18 5 18 5 18 5 18 5 18 5 18 5 1	$6\frac{1}{2}$ 7 7 7 7 7 8 9	1	\$0.48 .52 .52 .52 .52 .52 .60 .72 .90	\$0.66 .72 .72 .72 .72 .72 .82 .97 1.20 1.20	\$0.96 1.04 1.04 1.04 1.04 1.16 1.34 1.60	124 129 130 131 132 139 140 143 144

SINGLE HEAD SET SCREW WRENCHES



Straight Opening

 $Any \, one \, of \, these \, wrenches \, can \, be \, milled \, one \, size \, larger \, or \, smaller \, if \, desired \,$

	For Set	Extreme	Thickness	P	RICE EAG	CII	
No.	Screw, Size	Length	of Head	Un- finished	Semi- finished	Finished	No.
280	316	3	3 16	\$0.10	\$0.14	\$0.23	280
281	1	33	7 3 2	.12	.17	.27	281
282	5 16	$4\frac{1}{2}$ $5\frac{3}{8}$	31672 31445 11367 11429 1148 1148	.14	.21	.31	282
283	38	5 3 8	5	.17	.25	.37	283
284	5 16 38 7 16 12	6	3 8	.21	.31	.45	284
285	1 2	$6\frac{3}{4}$	7 16	.26	.38	.54	285
286	9 16 5	$7\frac{1}{2}$	1/2	.31	.45	.65	286
287	58	8	9 16	.38	.65	.80	287
288	34	9	5 8	.48	.68	.98	288
289	7 8	$10\frac{1}{2}$	11	. 60	.84	1.20	289
290	1	12	34	.80	1.10	1.48	290
291	11/8	12	13	1.10	1.40	1.80	291



MARK



DOUBLE HEAD SET SCREW TOOL POST WRENCHES



Holes broached. Closed end. $22\frac{1}{2}^{\circ}$ angle. Open end straight.

	Open End	Closed End	Length	P	PRICE EACH			
No.	for Set Screws, Size, Inches	for Set Screws, Size, Inches	Over All, Inches	Un- finished	Semi- finished	Finished	No.	
201 202 203	7 16 1 2	16 16 2	5½ 6 6	\$0.40 .44	\$0.56 .62 .62	\$0.80 .88	201 202	
204 205 206	9 16 5 8 11 16 3	19 5 6 5 6 5	$6\frac{3}{4}$ $6\frac{3}{4}$ $7\frac{1}{2}$. 44 . 52 . 52 . 60	.72 .72 .82	1.00 1.00 1.16	203 204 205 206	

SINGLE HEAD BOX WRENCHES

DROP FORGED

2210 Angle



Unfinished Wrenches have Broached Opening

	CH	RICE EAG	PI	Thickness		For	
l N	Finished	Semi- finished	Un- finished	of Head	Length	Set Screw, Size	No .
1	\$0.23	\$0.15	\$0.11	14	3	3 16	107
1	.27	.17	. 12	9 32 5 16 3 8 7 16 15 32	33	1	108
1	.31	.20	.14	5	33	5	109
1	.35	.24	. 16	38	41	5 16 18 7 16 19 15 15 15 15 15 15 15	110
1	.40	.28	. 19	7 16	478	7 16	111
1	.48	.34	.23	15	$5\frac{1}{2}$	1/2	112
1	.58	.41	.28	2	$6\frac{1}{4}$	76	113
1	.70	.50	.35	9 16 5	7	5 8	114
1	.85	.62	.44	5 8	8	34	115
1	1.10	.81	.60	11 16	9	7	116
1	1.40	1.05	.80	$\frac{11}{16}$ $\frac{3}{4}$	10	1	117



THIN CHECK NUT WRENCHES

DROP FORGED



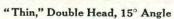


	For U. S.	Open-	Ex-	Thick-	PR	ICE EACH	I	
No.	Standard Nut; Size Bolts	ing, Milled	treme Length	ness Head	Un- finished	Semi- finished	Finished	No.
799	1/4	1/2	4	5 3 2	\$0.12	\$0.18	\$0.26	799
800	5 16 3 0	1/2 19 31/1 16 255 37/8 31/3/2	41/4	5 3 2 1 1 6 4 3 1 3 7 7 3 2	.15	.22	.32	800
801	3 8	$\frac{11}{16}$	51/8	3	.18	.26	.38	801
802	16 1/2 9 16 5/8 3/4	25 32	57/8	7 32	.22	.32	.45	802
803	1/2	7/8	65/8	17	.26	.38	.54	803
804	9 16	31	73/8	9 3 2	.31	.45	. 64	804
805	5/8	116	81/4	$\frac{\frac{9}{32}}{\frac{5}{16}}$.38	.54	.76	805
806	3/4	11/	10	3 8	.48	.68	.94	806
807	7/8	17/16	111/2	7 16 1/2	.68	.92	1.25	807
808	1	15/8	131/4	1/2	1.00	1.30	1.70	808

THIN CHECK NUT WRENCHES

DROP FORGED







	For U. S. Standard	Openings,	Extreme	Thickness	PI	RICE EAC	CH	
No.	Nuts; Size Bolts	Milled	Length	of Heads	Un- finished	Semi- finished	Finished	No.
819	3 & 1/4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	43/8	9 & 5	\$0.17	\$0.25	\$0.38	819
320	3 & 5	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	43/8	9 8 5 32	.17	.25	.38	820
321	14 & 5	12 & 19	$\frac{4^{3}}{5^{1}}$	9 & 5 64 & 32	.17	.25	.38	821
322	14 & 38	1/2 & 11	51/2	5 8 3 16	.22	.32	.48	822
823	36 8 36	32 X 15	51/2	5 & 3 16	.22	.32	.48	823
824	3/8 & 7/16 3/8 & 7/16	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	51/2	$\begin{array}{c} \frac{5}{32} & & \frac{13}{16} \\ \frac{3}{16} & & \frac{7}{32} \end{array}$.22	.32	.48	824
325	3/8 & 7	$\frac{11}{16} & \frac{25}{32}$	67/8	3 8 7 32	.28	.40	.60	825
326	38 & 1/2	11 & 7/8	1000		.28	.40	.60	826
327	7 & 1/2	25 & 7/8			.28	.40	.60	827
328	7 & 9	$\frac{25}{32}$ & $\frac{31}{32}$	81/2	7 8 9 32	.40	.56	.80	828
329	12 & 3	7/8 & 31/32			.40	.56	.80	829
830	1/2 & 5/8 9/8 & 5/8	78 & 116		.5.5	.40	.56	.80	830
831	16 & 5/8	$\frac{31}{32} & 1\frac{1}{16}$	1038	9 & 5	.60	.84	1.15	831
832	16 & 34	31 & 114		100	.60	.84	1.15	832
833	5/8 82 3/1	116 & 114			.60	.84	1.15	833
834	5/8 & 7/8	1 1 & 1 7	125/8	5 8 7	1.00	1.30	1.75	834
835	3/4 & 7/8	$1\frac{1}{4} & 1\frac{7}{16}$		35,00	1.00	1.30	1.75	835
836	34 & 1	11/4 & 15/8			1.00	1.30	1.75	836





MARK



GENERAL PURPOSE WRENCHES

DROP FORGED





22½° Angle

For Carriage and Automobile Builders and for General Service in which a long, light wrench is required.

Milled regularly to dimensions shown below.

Can be milled to special combinations when required.

	0 .		(DI: 1	P	RICE EAG	CH	
No.	Openings Finished Inches	Extreme Length Inches	Thickness of Heads, Inches	Un- finished	Semi- finished	Finished	No.
500 500A 500B	$\frac{3}{8}$ & $\frac{1}{2}$ $\frac{3}{8}$ & $\frac{7}{16}$ $\frac{13}{32}$ & $\frac{1}{2}$	$6\frac{1}{4}$ $6\frac{1}{4}$ $6\frac{1}{4}$	7 (21 7 (21 7 (21 7 (21 4 4 4 4 4 4 4 4 4 4 4 4 6 1 7 (1 5 1 6 1 6 6 1 7 (1 5 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 6 1 6 1 6 6 1	\$0.18 .18 .18	\$0.27 .27 .27	\$0.38 .38 .38	500 500 A 500 B
500C 501	4 & 16	6.18.18.18.18.18.14.14.14.14.14.14.14.14.14.14.14.14.14.	$\frac{\frac{7}{32}}{\frac{1}{2}}$.18	.27	.38	5000 501
501A	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	7 1/8	1	.23	.34	.47	501A
501B	19 & 11 16	7 1/8	1	.23	.34	.47	501I
501C	13 & 1 32 & 2	71/8	1	,23	.34	.47	5010
502	132 & 116 16 16 16 16 16 16 16 16 16 16 16 16	81	5 16	.29	.43	.58	502
502A	9 & 11 16 & 16	81	5 16	.29	.43	.58	502
602B	5 & 11 8 & 16	814	5 16	.29	.43	.58	5021
02C	$\frac{9}{16} & \frac{19}{32}$	81/4	16	29	.43	.58	5020
603	3 & 7 8	$9\frac{1}{4}$	8	.38	.55	.72	503
03A	$\frac{3}{4}$ & $\frac{13}{16}$	94	8 2	.38	.55	.72	503
03B 03C	$\frac{25}{32} & \frac{7}{8}$	94	8 3	.38	.55	.72	5031
030	$\frac{11}{16}$ & $\frac{3}{4}$ $\frac{7}{8}$ & 1	$9\frac{1}{4}$ $10\frac{3}{8}$	87	.38	.70	.72	5030
04A	15 & 1	$10\frac{3}{8}$	16	.50	.70	.90	504 504
04B	7 & 1 1 1 6 & 1	$10\frac{3}{8}$	16	.50	.70	.90	504
05	1 & 1½	12	16	.70	1.00	1.30	505
05A	1 & 14	12	1 2	.70	1.00	1.30	505
05B	$1\frac{1}{16} & 1\frac{1}{4}$	12	1 2	.70	1.00	1.30	505
505C	$1\frac{1}{8} & 1\frac{1}{4}$	12	1	.70	1.00	1.30	5050









TEXTILE MACHINE WRENCHES



Double Head, 2210 Angle

For Standard Hexagon or Square Nuts

Num-	Length,	Thick-	For Standard	Size of	P	RICE EAG	CH	Num-
ber	Inches	ness of Head	Hex. Nuts: Size Bolts	Openings	Unfin- ished	Semi- finished	Finished	ber
550 550A 551 551A 552 552A 553 553A 554 554A 555A	4 ½ ½ ½ ½ ½ ½ ½ ½ ½ ½ ½ ½ ½ ½ ½ ½ ½ ½ ½		A The specialistic of The Total Control of the Tota	\$\frac{1}{2}\frac{1}\frac{1}{2}\f	\$0.17 .17 .21 .21 .27 .27 .36 .36 .50 .50 .68	\$0.25 .25 .31 .31 .40 .40 .53 .53 .72 .72 .72	\$0.38 .38 .46 .46 .60 .60 .78 .78 1.05 1.05 1.40	550 550A 551 551A 552 552A 553A 553A 554 554 555 555A



22½° Angle

Num-	Size of	Thickness	Length	PR	RICE EAC	Н	Num
ber	Openings, Inches	of Head, Inches	Over All, Inches	Unfinished	Semi- finished	Finished	ber
220 221 222 223 224 225	\$\frac{3}{8} & \frac{7}{16} \\ \frac{2}{12} & & \frac{9}{16} \\ \frac{2}{16} & & \frac{1}{16} \\ \frac{2}{16} & & \frac{1}{16} \\ \frac{7}{8} & & 1 \\ 1 & & 1 \\ 1 & & 1 \\ 1 & & 1 \\ 1 & & 1 \\ 1 & & 1 \\ 1 & & 1 \\ 1 & & 1 \\ 1 & & 1 \\ 1 & & 1 \\ 1 &	144 151 136 176 126 19	4 5 6 7 8 9	\$0.15 .27 .41 .57 .72	\$0.22 .37 .57 .76 .95	\$0.32 .52 .77 1.06 1.35 1.65	220 221 222 223 224 225

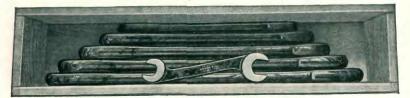






TEXTILE MACHINE WRENCHES





In Sets

SET No. 10

Each set consists of one		PRICES			EXPO	RT PAC	KING
each Textile Wrench,	Price	Price	Price,	No.	Net	Gross	Measurements each case
Nos. 550, 551, 552,	per set,	per Set,	per set,	sets	W'ght	W'ght	
553, 554 and 555.	Unfin.	Semi-fin.	Finished	to case	lbs.	lbs.	
Cardboard box	\$2.19	\$3.17	\$4.67	50	225	265	12 ³ / ₄ x 14 ¹ / ₂ x 24 ¹ / ₂
	2.35	3.33	4.83	50	241	285	13 ¹ / ₄ x 29 ¹ / ₂ x 19 ¹ / ₁
	2.64	3.62	5.12	50	225	265	12 ³ / ₄ x 14 ¹ / ₂ x 24 ¹ / ₂

SELECTED SET No. 12

Set of five wrenches containing openings for every size bolt from $\frac{3}{16}$ to $\frac{7}{8}$.

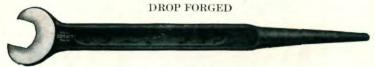
Each set consists of one		PRICES			EXPO	RT PAC	KING
each Textile Wrench, Nos. 550, 551, 553A, 554 and 555A.	Price per set, Unfin.	Price per set, Semi-fin.	Price per set, Finished	No. sets to case	Net W'ght lbs.	Gross W'ght lbs.	Measurements each case
Cardboard box	\$1.92 2.08 2.37	\$2.77 2.93 3.22	\$4.07 4.23 4.52	50 50 50	200 216 200	240 260 240	123 x 144 x 244 134 x 292 x 19 123 x 144 x 24







CONSTRUCTION WRENCHES AND CAR BUILDERS' WRENCHES



15° Angle

Unfinished wrenches have milled openings. Special sizes milled to order.

The round tang is for bringing bolt or rivet holes into line, and can be inserted into convenient openings.

	For U. S. Standard	Open-		Thick-	PI	RICE EAG	CH	
No.	Nut; Bolt Size	ings Finish'd	Length	ness of Head	Un- finished	Semi- finished	Finished	· No.
451 452	3 8 1	$\frac{11}{16}$	$\frac{9}{11\frac{1}{2}}$	$\frac{\frac{11}{32}}{\frac{7}{16}}$	\$0.35 .45	\$0.45 .58		451 452
453 454	9 16 5	$1\frac{\frac{8}{31}}{16}$	$12\frac{1}{2}$ 14	16 12 9 16	.45	.58		453
455 456	34	$1\frac{1}{4}$ $1\frac{7}{16}$	$\frac{16}{17\frac{1}{2}}$	5 8 11 16	1.18	1.10 1.50		455
457	1°	158	19	3 6	1.60	2.10		457

STRUCTURAL WRENCHES

DROP FORGED

Same as above, but with same opening and off-set heads.

	For U. S. Standard		Extreme	Thickness	PRICE	EACH	40
No.	Nut; Size Bolt	Opening	Length	of Head	Un- finished	Semi- finished	No.
481 482 483 484 485 486 487	c)6 -4(2 9)16 ()6 c;(41-)6	$\begin{array}{c} \frac{23}{312} \\ \frac{15}{116} \\ 1\frac{1}{64} \\ 1\frac{1}{8} \\ 1\frac{1}{12} \\ 1\frac{1}{116} \end{array}$	$9\\11\frac{1}{2}\\12\frac{3}{4}\\14\frac{1}{8}\\16\\17\frac{1}{2}\\19$	11 32 7 16 12 9 16 8 116 8 116 33	\$0.40 .52 .52 .74 1.02 1.40 1.90	\$0.52 .70 .70 .98 1.34 1.80 2.50	481 482 483 484 485 486 487







DOUBLE HEAD CAR WRENCHES

DROP FORGED



2210 Angle, Long Leverage

Unfinished are milled only.

Semi-finished are milled, edges ground and case-hardened all over. Bright heads.

In stock for U.S. Standard nuts.

Finished wrenches can be supplied at double unfinished price.

3. 7	For U. S. Standard		Extreme	Thickness	PRICE	EACH	2.
No.	Nuts; Size Bolts	Openings	Length	Heads	Un- finished	Semi- finished	No
367	3 & 1	23 & 29 32 & 32	12	7 & 1	\$0.55	\$0.75	367
370	38 & 2 5 8 3 4 7 8 3 3 4 7 8 3 1 4 7	15 & 118	19	1 & 1	. 95	1.25	370
371	1 & 3	15 & 15 16	19	1 & 1 2 & 2	1.15	1.55	371
372	1 & 7	$\frac{15}{16} & 1\frac{1}{2}$	20	1 & 1 2 & 2	1.15	1.55	372
373	5 & 3	$1\frac{1}{8}$ & $1\frac{5}{16}$	20	$\frac{1}{2} & \frac{1}{2}$	1.15	1.55	373
374	5 & 7 8 & 8	$1\frac{1}{8}$ & $1\frac{1}{2}$	21	$\frac{1}{2} & \frac{1}{2}$	1.35	1.85	374
375	5 & 1	$1\frac{1}{8}$ & $1\frac{11}{16}$	21	1 & 1 2	1.35	1.85	375
376	\$\\ \text{2} \text{2} \text{3} \text{2} \text{4} \text{5} \text{2} \text{4} \text{5} \text{5} \text{2} \text{4} \text{5} \text{5} \text{6} \text{7} \text{6} \text{7} \text{6} \text{7} \text{6} \text{1} \text{6} \text{6} \text{1} \text{6} \text{6} \text{1} \text{6} \text{6} \text{6} \text{1} \text{6} \text{6} \text{6} \text{1} \text{6} \text{6} \text{6} \text{1} \text{6} \text{6} \text{6} \text{6} \text{1} \text{6} \text{6} \text{6} \text{6} \text{1} \text{6}	$1\frac{5}{16} & 1\frac{1}{2}$	21	12121212121212121212121212121212121212	1.35	1.85	376
377	3 & 1	$1\frac{5}{16} & 1\frac{11}{16}$	22	1/2 & 1/2	1.65	2.25	377
378	3 & 1½	$1\frac{5}{16} & 1\frac{7}{8}$	22		1.65	2.25	378
379	7 & 1	$1\frac{1}{2}$ & $1\frac{11}{16}$	22	1 & 1 2 & 1	1.65	2.25	379
380	7 & 1 1 8	$1\frac{1}{2}$ & $1\frac{7}{8}$	23	1/2 & 1/2	1.95	2.65	380
381	7 & 11	$1\frac{1}{2}$ & $2\frac{1}{16}$	23	1/2 & 1/2	1.95	2.65	381
382	$1 & 1\frac{1}{8}$	$1\frac{11}{16} & 1\frac{7}{8}$	23	1/2 & 1/2	1.95	2.65	382
383	1 & 11/4	$1\frac{11}{16} & 2\frac{1}{16}$	24	$\frac{1}{2} & \frac{9}{16}$	2.25	3.15	383
385	1 8 & 1 4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	24	$\frac{1}{2} & \frac{9}{16}$	2.25	3.15	385
387	$1\frac{1}{8} & 1\frac{1}{2}$	$1\frac{7}{8} & 2\frac{7}{16}$	25	12129 6 19 16 24 & & & & & & & & & & & & & & & & & &	3.40	4.50	387
389	$1\frac{1}{4} \& 1\frac{1}{2}$	$2\frac{1}{16} & 2\frac{7}{16}$	25	5 & 3 4	3.40	4.50	389





GENERAL PURPOSE WRENCHES IN SETS

DROP FORGED





SET A

Contains 5 Wrenches, one each of the following:

	Manufac- turers' Stan-	Openings	Extreme	Thick-	PI	RICE EAG	CH	
No.	dard Nuts, Size Bolts, Inches	Finished, Inches	Length, Inches	ness of Heads, Inches	Un- finished	Semi- finished	Finished	No.
500 501 502 503 504	$\begin{array}{c} \frac{3}{16} & \frac{1}{4} \\ \frac{1}{4} & \frac{5}{4} \\ \frac{1}{4} & \frac{5}{16} \\ \frac{7}{16} & \frac{3}{4} \\ \frac{3}{8} & \frac{7}{16} \\ \frac{7}{16} & \frac{1}{2} \end{array}$	3 & 12 sissing 12 to 12	614 718 814 914 108	7 32 4 16 36 7 16	\$0.18 .23 .29 .38 .50	\$0.27 .34 .43 .55 .70	\$0.38 .47 .58 .72 .90	500 501 502 503 504
acked	one set in card one set in wood one set in canv	len box			1.74	2.29 2.45 2.74	3.05 3.21 3.50	

SET B

Contains 3 Wrenches, one each of the following:

	Manufac- turers' Stan-	Openings	Extreme	Thick-	PI	RICE EAG	CH	
No.	dard Nuts, Size Bolts, Inches	Finished, Inches	Length, Inches	ness of Heads, Inches	Un- finished	Semi- finished	Finished	No.
500 502 504	16 & 1 16 & 3 16 & 3 76 & 2	38 & 1 5 & 3 7 & 1	$\begin{array}{c} 6\frac{1}{4} \\ 8\frac{1}{4} \\ 10\frac{3}{8} \end{array}$	$\frac{\frac{7}{32}}{\frac{5}{16}}$	\$0.18 .29 .50	\$0.27 .43 .70	\$0.38 .58 .90	500 502 504
acked	one set in cardle one set in wood one set in canv	len box			1.11	1.40 1.54 1.75	1.86 2.00 2.21	

SET D

Contains 5 Wrenches, for A. L. A. M. Standard Nuts and Cap Screws, one each of the following:

	For A.L.A.M. Standard Nuts and	Openings	Extreme	Thick- ness of	PI	RICE EAG	СН	
No.	Cap Screws, Size of Bolts, or Cap Screws	Finished, Inches	Length, Inches	Heads, Inches	Un- finished	Semi- finished	Finished	No.
500 502A 503 504A 505C	1 & 10 10 10 10 10 10 10 10 10 10	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	61 81 91 103 12	37 5 16 8 7 16	\$0.18 .29 .38 .50 .70	\$0.27 .43 .55 .70 1.00	\$0.38 .58 .72 .90 1.30	500 502A 503 504A 505 (
acked	one set in card one set in wood one set in canv	len box			2.21	2.95 3.11 3.40	3.88 4.04 4.33	







GENERAL PURPOSE WRENCHES IN SETS

DROP FORGED





SET C
Contains 3 Wrenches, one each of the following:

	U. S. Stan-	Openings	Extreme	Thick-	PI	RICE EAG	СН	
No.	dard Nuts, Size Bolts, Inches	Finished, Inches	Length, Inches	ness of Heads, Inches	Un- finished	Semi- finished	Finished	No.
500B 501B 503B	3 & 4 16 & 4 5 & 8 76 & 2	13/2 & 1/2 19/32 & 11/6 32/32 & 1/6	61 71 91	7 37 4 5 8	\$0.18 .23 .38	\$0.27 .34 .55	\$0.38 .47 .72	500B 501B 503B
Packed	one set in card one set in woo one set in can	den box			.93	1.16 1.30 1.51	1.57 1.71 1.92	

SET E

Contains 6 Wrenches, twelve much used openings, no duplicates, as follows:

	Openings	Extreme	Thickness	PI	RICE EAC	H	
No.	Finished, Inches	Length, Inches	of Heads, Inches	Unfinished	Semi- finished	Finished	No.
500A 501A 502B 503A 504 505C	3 & 7 6 9 9 12 & 15 6 & 16 13 14 16 14 14	61/4 7 / 8 81/4 91/4 10/8 12	7 32 4 5 5 8 7 16	\$0.18 .23 .29 .38 .50 .70	\$0.27 .34 .43 .55 .70	\$0.38 .47 .58 .72 .90 1.30	500A 501A 502B 503A 504 505C
acked one	set in cardboa set in wooden set in canvas	box		2.44	3.29 3.45 3.74	4.35 4.51 4.80	

SET F Contains 6 Wrenches, twelve openings, no duplicates, as follows:

	Openings	Extreme	Thickness	PI	RICE EAC	H	
No.	Finished, Inches	Length, Inches	of Heads, Inches	Unfinished	Semi- finished	Finished	No.
500 C 500 A 501 C 502 C	1 & 5 3 & 7 8 & 7 16 13 32 & 2 9 & 19 16 & 32	6 14 6 4 7 8 8 4	372 372 332 2 2 2 16	\$0.18 .18 .23 .29	\$0.27 .27 .34 .43 .55	\$0.38 .38 .47 .58	500 C 500 A 501 C 502 C
503C 504B	116 & 3 16 & 4 28 & 1 16	103	16 16	.38	.55	.72	503C 504F
acked one	set in cardboa set in wooden set in canvas i	box		1.92	2.56 2.72 3.01	3.43 3.59 3.88	

BONNEY MALLEABLE GENERAL PURPOSE WRENCHES



These Wrenches are made of the highest grade malleable iron which gives plenty of strength for any ordinary purpose, and are carefully finished with polished heads. Each set consists of five wrenches, ten openings, packed in a strong individual carton, and there are Two Dozen Sets to the Case.

With each case is enclosed, FREE OF CHARGE, a SHOP CAP and a Sample "BONNEY BOX TOOL" which is strong enough to open the heaviest case, but so small that it can be conveniently carried in the pocket.

Price per case, \$12.00. Weight per case, 60 lbs.

BONNEY MALLEABLE MACHINERY WRENCHES



These Wrenches are made of the same strong material as our Malleable General Purpose Wrenches; namely, of the highest grade of malleable iron carefully cast so that they are strong, tough and practically unbreakable. The heads are polished.

Each set consists of six wrenches, twelve openings, ranging from $\frac{3}{8}$ " to $\frac{11}{4}$ " by sixteenths; packed one set to a carton, Twenty-four Sets to a Case.

Included with each case of twenty-four sets, FREE OF CHARGE, is a SHOP CAP and a sample BONNEY "JACK RABBIT" WRENCH, a very handy tool, light yet serviceable, containing openings for eight different sizes of nuts.

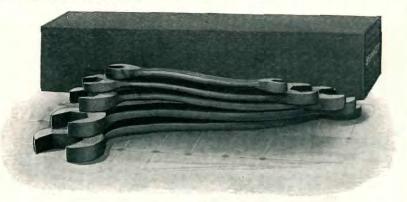
Price per case, \$12.00. Weight per case, 55 lbs.







BONNEY MALLEABLE GENERAL PURPOSE WRENCHES



Double Head 221/2° Angle

These wrenches are made of the highest grade of malleable iron and are particularly designed for household, farm and automobile use. They are so constructed that it is practically impossible to break them with ordinary use. This is a particularly attractive and rapid selling line.

Packed for domestic trade, twenty-four sets to the case as shown on page 40.

No.	Openings Inches	Length, Inches	Price per Doz., Polished Heads	No.
A	$\frac{3}{8}$ X $\frac{1}{2}$	$5\frac{1}{2}$	\$0.80	A
В	$\frac{9}{16} \times \frac{5}{8}$	$6\frac{1}{2}$	1.00	В
D	16 X 4 13 x 7	7 8 8 3	1.20	D
E	16 X 8 15 X 11 16 X 15	91	1.60	E

Packed $\frac{1}{2}$ doz. in cardboard box.

PACKED IN SETS OF FIVE One each of sizes A—E, inclusive

EXPORT PACKING OF MALLEABLE GENERAL PURPOSE WRENCHES

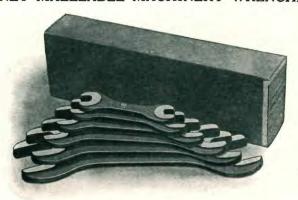
No. sets to case	Net Weight	Gross Weight	Measurements
100	209 lbs.	245 lbs.	36 x 13½ x 17







BONNEY MALLEABLE MACHINERY WRENCHES



Double Head 15°

Bonney Malleable Machinery Wrenches are made of the same high grade material as Bonney Malleable General Purpose Wrenches. They are designed for use of such customers as prefer a 15° angle wrench to a $22\frac{1}{2}$ ° angle wrench. They are slightly shorter than the wrenches for the same size openings in the General Purpose Series but are equally as strong and as well made. Packed for domestic trade, twenty-four sets to the case, as shown on page 41.

No.	Openings Inches	Length Inches	Price per Doz. Polished Heads	No.
F	$\frac{3}{8} \times \frac{7}{16}$ $\frac{1}{2} \times \frac{9}{16}$	338	\$0.65	F
G H	$\frac{1}{2} \times \frac{9}{16}$	4 1	.80	G
I	8 X 16 3 X 13 4 X 16	61	.95 1.10	I
Ĵ	7 x 1	71	1.20	j
K	$1\frac{1}{8} \times 1\frac{1}{4}$	81	1.30	K

Packed ½ doz. in cardboard box.

PACKED IN SETS OF SIX One Each Size F-K, Inclusive

One set packed in cardboard box with polished heads......\$0.50 Weight each set, 2 lbs.

EXPORT PACKING OF MALLEABLE MACHINERY WRENCHES

No. sets to case	Net Weight	Gross Weight	Measurements
100	200 lbs.	235 lbs.	$26\frac{1}{4} \times 15 \times 9\frac{1}{4}$





ALWAYS READY WRENCHES



Nickel Plated

These wrenches are drop-forged from special wrench steel, are carefully ground and polished and are hardened to withstand the severest strain. They have a large range of openings and for their compactness are very handy pocket tools.

The nickel plating is absolutely the best and is guaranteed not to

chip or peel.

No.	Length	Holds Pipe	Wt. per doz.	Price per doz.
1 2	5½ in.	1 to 3 1 " 11	6 lbs.	\$ 5.00 6.75
$\tilde{2}\frac{1}{2}$	91 "	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	25 "	10.50 16.00
3	11 "	3 " 13 4 " 13	37 "	

Packed ½ doz. in cardboard box.



Black

The Black Always Ready Wrenches are the same in weight, length and capacity as the nickel plated, but are made with polished jaws which appear in relief.

No.	Length	Holds Pipe	Wt. per doz.	Price per doz.
1 2	$\frac{5\frac{1}{2}}{7}$ in.	½ to ¾	6 lbs.	\$ 4.50 6.25
21/2	94 "	$\frac{1}{2}$ " $1\frac{3}{4}$	25 "	10.00
3	11	4 14	37 "	15.25

Packed ½ doz. in cardboard box.

EXPORT PACKING OF ALWAYS READY WRENCHES—SAME PACKING FOR BOTH FINISHES

Size	No. to case	Net Wt. Lbs.	Gross Wt. lbs.	Measurements
1	12 doz.	72	87	22 x 12 x 8
2	15 "	167	190	$22\frac{1}{4} \times 15\frac{3}{4} \times 9\frac{3}{4}$
$2\frac{1}{2}$	15 "	375	415	$24\frac{1}{2} \times 16 \times 16$
3	6 "	222	257	$21\frac{1}{2} \times 14\frac{3}{4} \times 13$





THE "VIXEN" WRENCH

DROP FORGED



The "Vixen" Wrench is designed as a handy pocket tool for general use and around the automobile, tractor or farm machinery. The two ends are milled with teeth of capacity to turn pipe from \(^14''\) to \(^14''\). The tapped holes in the center are made to restore or clean threads on bolts that have become bruised or battered. The openings are not intended to be used for cutting new threads. Vixen Wrenches are drop-forged, ground, polished and hardened. Furnished in U. S. Standard Threads. Length over all, \(^734''\).

U. S. STANDARD THREADS \$_{16}-18\, _{2}-13\, _{8}-16\\

Finish	Weight per doz.	Price per doz.
Blue	11 lbs.	\$5.00

Packed ½ doz, in a cardboard box, 1 gross in a case.

THE "BABY VIXEN" WRENCH

Trade Mark Registered

DROP FORGED



The "Baby Vixen" Wrenches are similar to "Vixen" Wrenches, but smaller in size. The teeth will turn pipe from $\frac{1}{4}$ " to $\frac{3}{4}$ ". The tapped holes are furnished in U. S. Standard threads. Length, $5\frac{1}{2}$ ".

U. S. STANDARD THREADS 3/8-16, 1/4-20, 1/6-18

Finish	Weight per doz,	Price per doz.	
Blue	6 lbs.	\$4.50	

Packed ½ doz. in a cardboard box, 1 gross in a case.







BONNEY "CROCODILE" WRENCHES

Trade Mark Registered

STAMPED STEEL

Are handy for general use; they will turn nuts as well as round bars



Nos. 0S and 1S

Nos. 0S and 1S Crocodile Wrenches are stamped from high grade sheet steel. The teeth are milled and the jaws are carefully hardened. They have black satin finish and polished jaws.

No.	Length	Holds pipe	Holds round iron	Price per doz.	Wt. per doz.
0S 1S	4'' 534''	1/8" to 1/4" 1/8" " 3/8"	1/4" to 9 " 1/4" " 3/4"	\$3.00 4.00	1¼ lbs. 3½ "

Packed I gross in a case.

DROP FORGED



Nos. 11/2 and 13/4

Nos. 1½ and 1¾ are drop-forged, teeth milled diagonally and jaws hardened and polished. The steel used in the manufacture of all drop-forged "Crocodile" Wrenches is high in carbon and of special analysis.

No.	Length ·	Holds pipe	Holds round iron	Price per doz.	Wt. per doz.
$\frac{11/2}{13/4}$	53/4"	1/8" to 3/8"	14" to 34"	\$4.50	4 lbs.
	7"	1/8" " 3/4"	38" " 118"	8.00	8½ "

1 gross in a case.







BONNEY "CROCODILE" WRENCHES



No.	Length inches	Holds pipe, inches	Holds round iron, inches	Price, per doz.	Weight per doz.
2	9	$\frac{3}{8}$ to $\frac{3}{4}$. ½ to 1	\$12.00	13 lbs.
$2\frac{1}{2}$	$12\frac{1}{2}$	$\frac{3}{8}$ to 1	$\frac{5}{8}$ to $1\frac{1}{4}$	18.00	181 "
3	15	$\frac{1}{2}$ to $1\frac{1}{4}$	$\frac{3}{4}$ to $1\frac{3}{8}$	24.00	36 "
4	21	11 to 2	. $1\frac{1}{2}$ to $2\frac{1}{2}$	36.00	78 "
$4\frac{1}{2}$	24	$1\frac{1}{2}$ to $2\frac{1}{2}$	$1\frac{7}{8}$ to $3\frac{1}{4}$	50.00	114 "
5	27	2 to 3	. $2\frac{1}{4}$ to $3\frac{1}{2}$	60.00	147 "

All of the above sizes packed bulk, except No. 2, which is packed $\frac{1}{2}$ dozen to a box.



TWIN "CROCODILE" Drop-Forged, teeth milled diagonally, and jaws hardened and polished. The steel used is high in carbon and of a special analysis.

No.	Length inches	Holds pipe, inches	Holds round iron inches	Price, per doz.	Weight, per doz.
10	10	1/8 to 3/4	$\frac{1}{4}$ to 1	\$18.00	14 lbs.

Packed bulk.

EXPORT PACKING OF "CROCODILE" WRENCHES

		et Weight	Gross Weight	Measurements,
Size	No. to case	lbs.	lbs.	inches
0	144 doz	180	209	$32 \times 11\frac{1}{2} \times 9$
1	36 "			22 x 12 x 8
21		126	156,	22 x 12 x 8
1M	36 "	90	120	22 x 12 x 8
$1\frac{1}{2}$	50 "	212	256	32 x 18 x 12
13	30 "	250		$31\frac{1}{8} \times 12\frac{1}{2} \times 12$
2	25 "	325	364	32 x 17 x $15\frac{3}{4}$
$2\frac{1}{2}$	20 "	368	405	32 x $12\frac{1}{2}$ x $14\frac{1}{2}$
3	10 "	360	398	24½ x 14¾ x 17
4	3 "	234	262	23 x $14\frac{1}{2}$ x 10
$4\frac{1}{2}$	1 "	114	150	26 x 9 x 61
5	1 "	147	179	29 x 10 x $8\frac{3}{4}$
10 (Twin)	20 "	280	320	$26\frac{3}{4} \times 12 \times 12$







"CHAMPION" VISES



Champion Vises are made especially for the most particular tool users and are warranted against defects and breakage.

They are manufactured in sizes from $1\frac{1}{2}$ to 3-inch jaw with clamp

base and some sizes in both clamp and swivel base designs.

All front jaws are made of high grade semi-steel and the back jaws of best quality gray iron. Some sizes have steel plates inserted in the back jaws. These are particularly desirable for jewelers, die makers and key filers who will use the vise for clamping a great many pieces of the same size.

The screws are turned from bar steel and have lathe cut threads.

All Champion Vises are finished in maroon baking enamel and the jaws, screws, slides and anvils are highly polished.

Sizes 112 to 118, inclusive, are packed two in a cardboard box; all other sizes in individual boxes.

PRICE LIST-Clamp Base

No.		Size of Jaw	Weight, each	Price, per doz.
112	Steel front jaw	$1\frac{1}{2}$ in	$1\frac{1}{4}$ lbs	\$4.50
113	Steel front jaw	$1\frac{3}{4}$ "	$1\frac{3}{4}$ "	
114	Steel front jaw	2 "	21	9.00
115	Steel front jaw	* 2½ · · · · · · · ·	23 "	12.00
118	Steel front jaw	$2\frac{1}{2}$ "	3 4	18.00
121	Steel front jaw	3 "	$6\frac{3}{4}$ "	24.00

Swivel Base

No.		Size of Jaw	Weight, each	Price, per doz.
125	Steel jaws	2 in	3 lbs	\$15.00
127	Steel jaws	$2\frac{1}{2}$ "	41 "	24.00
129	Steel jaws	3 "	8 "	36.00







BONNEY LEHIGH VISES







CLAMP BASE PATENTED

Bonney Lehigh Vises are manufactured along the same general lines as the heavy type of Machinists' Box Slide Vises. They are small in size and designed particularly for tool makers, jig makers, die sinkers, jewelers and all practical mechanics. Because of the heavy construction, firmness, stability and high duty gripping power, they are particularly recommended for delicate and precision work.

No sacrifices have been made in weight where metal should be used to increase the strength and rigidity. The jaws are heavy, and the anvil has a good striking surface. The main screw is strongly made from bar steel, lathe threaded. The clamp is protected with a ball and socket cap (a patented feature with us), and a good thread screw.

Lehigh Vises are made both with iron jaws and steel inserted jaws. The steel inserts are particularly strong and heavy, and are carefully hardened. The finish of the Vises is dark green enamel, with the jaws, screws, slides and anvil highly polished.

No.	Description	Size of Jaw	Weight, each	Price, per doz.
1006	Plain Iron Jaws, Clamp Base	1½ in	3 lbs	\$12.00
1007	Plain Iron Jaws, Clamp Base	13 "	31 "	15.00
1008	Plain Iron Jaws, Clamp Base	2 "	4 "	18.00
1010	Plain Iron Jaws, Clamp Base	21 "	$5\frac{1}{2}$ "	30.00
1012	Plain Iron Jaws, Clamp Base	3 "	$9\frac{3}{4}$	36.00
1107	Hardened Steel Jaws, Clamp Base	13 "	31 "	18.00
1108	Hardened Steel Jaws, Clamp Base	2 "	4 "	21.00
1110	Hardened Steel Jaws, Clamp Base	21 "	51 "	33.00
1112	Hardened Steel Jaws, Clamp Base	3 "	94 "	42.00
1210	Hardened Steel Jaws, Swivel Base	21 "	6 "	36.00
1212	Hardened Steel Jaws, Swivel Base	3 "	$10\frac{1}{2}$ "	48.00









"BONNEY" VISES





Bonney Vises are made for general household and amateur uses. They are lower priced than the Champion Vises, but are made with the same care and attention to fit and finish as our more expensive lines.

The jaws are made of best grade gray iron and the main and thumb screws are cast semi-steel with threads that are all cut, not cast.

The head and collar is of a single piece with the main screw and will not wear out or pull off.

Bonney Vises are finished in black baking enamel with polished screws, jaws and anvils.

All sizes are packed two in a cardboard box.

PRICE LIST

No.		Size of Jaw	Weight, each	Price per doz.
1	Iron jaws	$1\frac{1}{2}$ in	1½ lbs	\$3.75
11	Iron jaws		11 "	5.00
2	Iron jaws		13 "	6,50
21	Steel jaws	2 "	21 "	9.75
3	Steel jaws with swivel jaw		23 "	12.00
31	Iron jaws	21 "	23 "	8.50
4	Iron jaws		41 "	16.50
7	Steel jaws with swivel attachment	23	41 "	22.50

These vises are packed in sets when so desired, both in various sizes and patterns of this line and also combined with Champion Vises.







BONNEY STANDARD VISES



Bonney Standard Vises are packed two in cardboard box. They are finished in black baking enamel with polished screws, jaws and anvils.

LIST PRICE

No.	Description	Size of Jaw	Weight, each	Price, per doz.
00	Iron jaws	1"	1 lb	\$ 3.25
01	Iron jaws	$1\frac{1}{2}^{\prime\prime}$	$1\frac{1}{2}$ "	3.75
02	Iron jaws	2"	21 "	6.50
$02\frac{1}{2}$	Iron jaws	$2\frac{1}{2}^{\prime\prime}$	4 "	12.00

BONNEY STANDARD VISES



Set No. 10

Bonney Standard Vises are similar to Bonney Vises illustrated on page 47. There are only four sizes of this pattern. Two of these sizes are not made in Bonney Vises. These are No. 00 and No. 02½. The No. 00 has a one-inch jaw and the No. 02½ a 2½-inch jaw. This is an ideal assortment for the small retail store and is particularly attractive for wholesalers.

LIST PRICE SET No. 10

Quantity	No.	Description	Size of Jaw	Weight, each	Price
6	00	Iron jaws	1"	. 1 lb	\$1.63
6	01	Iron jaws	$1\frac{1}{2}''$		1.87
3	02	Iron jaws			1.63
2	$02\frac{1}{2}$. 4 "	2.00
	Sample	Stand			1.12
	Sample	Stand and 17 Vises			\$8.25

EXPORT PACKING OF No. 10 SETS

Lack	TOTAL THEM	OI HO. IO DEID	
No. sets to case	Net Wt. per case	Gross Wt. per case	Measurements
1	$31\frac{3}{4}$ lbs.	38 lbs.	$13\frac{3}{4} \times 10 \times 6\frac{1}{2}$







CHAMPION" VISES, IN SETS



Set No. 5

Set No. 5 contains twelve Champion Vises. All except one are of the clamp base pattern. They are all warranted.

This is an excellent assortment for a small store which has a trade

almost exclusively for high grade tools.

Each set packed in a strong case ready for reshipment.

LIST PRICE, SET No. 5

Quantity	No.	Description	Size	of j	aw	Weigh	it each	Price
2	112	Steel front jaw	1½ i	nche	S	11	lbs.	\$0.76
2	113	Steel front jaw	$\frac{1\frac{3}{4}}{2}$	**		13	**	1.08
3	114	Steel front jaw	2	**		21		2.25
1	115	Steel front jaw	21	66		23	**	1.00
1	118	Steel front jaw	$\frac{2^{\frac{1}{2}}}{3}$	"		21 23 33 34	**	1.50
2	121	Steel front jaw	3	**		$6\frac{3}{4}$	**	4.00
1	127	Steel jaws and swivel						
		base	21	66		41	**	2.00
Sam	ple stand							1.16
Sam	ple stand and	12 Vises, price per set						\$13.75

EXPORT PACKING OF No. 5 SET

No. sets to case	Net Wt. per case	Gross Wt. per case	Measurements
1	45 lbs.	59 lbs.	$30\frac{1}{4} \times 12\frac{1}{2} \times 6$





"BONNEY" AND "CHAMPION" VISES, IN SETS



Combination Set No. 3

Combination Sets No. 3 and No. 4 are designed for retail stores having a demand for tools of various grades. These sets contain both Bonney and Champion Vises. The Bonney Vise very low in price and unwarranted, and the Champion Vise slightly higher in price and thoroughly warranted.

LIST PRICE, SET No. 3

Quantity	No.	Description	Size	e of Ja	w	Wt. e	ach	Price
6	1	Iron jaws (Bonney)	11	inches		11 lb	s.	\$1.88
3	$1\frac{1}{2}$	Iron jaws "	7.3	**		$1\frac{1}{2}$ '	4	1.25
3	2	Iron jaws "	0	66		. 13 '	4	1.63
2	$2\frac{1}{2}$	Steel jaws "	0			$2\frac{1}{2}$ '		1.63
2	$3\frac{1}{2}$	Iron jaws "	OI	**		23 '		1.42
4	4	Iron jaws		**		$4\frac{1}{2}$ '		5.50
3	112	Steel front jaw (Champion	$1\frac{1}{2}$	4.6				1.13
2	113	Steel front jaw "	$1\frac{1}{2}$ $1\frac{3}{4}$	44		13 '		1.08
6	114	Steel front jaw "	9	44		21 '		4.50
1	115	Steel front jaw "	21			$\frac{2^{\frac{1}{2}}}{2^{\frac{3}{4}}}$	4	1.00
2	118	Steel front jaw "	21			33 .		3.00
2	121	Steel front jaw "	3	44			4	4.00
1	125	Steel jaws and swivel base.	9	44				1.25
1	129	Steel jaws and swivel base.		40				3.00
	mple stand							1.73
S.	mple stand	and 38 Vises, price per set						\$34.00

EXPORT PACKING OF No. 3 SET

No. sets to case	Net Wt. per case	Gross Wt. per case	Measurements
1	118 lbs.	134 lbs.	$22\frac{1}{2} \times 12 \times 9\frac{3}{4}$



HADE BONNEY

MAR



"BONNEY" AND "CHAMPION" VISES, IN SETS



Combination Set No. 4

Set No. 4 is particularly recommended for medium size stores. The stand used in connection with this set takes up counter space of only 18 inches x 11 inches and is very attractive in appearance.

The use of this stand will not only increase vise sales but also add a very ornamental display fixture.

LIST PRICE, SET No. 4

Quantity	No.	Description		No. Description Size of Jaw		of Jaw	Wt. each	Price
6	1	Iron jaws (Bonne	y)	11 i	nches	1½ lbs.	\$ 1.88	
4	$1^{\frac{1}{2}}$	Iron jaws "		13		11 "	1.67	
2	2	Iron jaws "		2	"	13 "	1.08	
2	$3\frac{1}{2}$	Iron jaws "		21		23 "	1.42	
1	4	Iron jaws "		23	44	41 44	1.38	
6	112	Steel front jaw (C)		11	**	11 "	2.25	
2	113	Steel front jaw		$\frac{1\frac{1}{2}}{1\frac{3}{4}}$	44	13 "	1.08	
2	114	Steel front jaw		2	"	21 "	1.50	
1	115	Steel front jaw	66	21	**	23 4	1.00	
1	118,	Steel front jaw	**	21	"	33 "	1.50	
Sam	ple stand						1.24	

EXPORT PACKING OF No. 4 SET

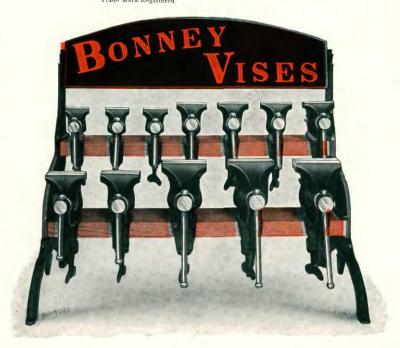
No. sets to case	Net Wt. per case	Gross Wt. per case	Measurements
1	59 lbs.	82 lbs.	$22\frac{1}{2} \times 15\frac{3}{4} \times 6\frac{3}{4}$







"BONNEY" VISES, IN SETS



Set No. B-2

This set is for use in small stores where a small stock of only a few sizes is carried. It is a particularly desirable assortment for wholesalers as it is packed ready for reshipment in a strong case, thus simplifying storage and reducing shipping expenses.

For replenishing the retail merchant's stock it is necessary for the

wholesaler to have on hand a supply of only five sizes of Vises.

LIST PRICE, SET No. B-2

	No.	Description	DIZE	of ja	aw	Wt.	each	Price
3 each	2	Iron jaws		nches	s	$1\frac{1}{4}$ $1\frac{3}{4}$	lbs.	\$ 0.94 2.16
	3 4 7	Steel jaws and swivel jaw	$2\frac{1}{4}$ $2\frac{3}{4}$	"		$2\frac{3}{4}$ $4\frac{1}{2}$	"	2.00 2.74
		Steel jaws and swivel jaw	2 ³ 4			$4\frac{1}{2}$		1.87

EXPORT PACKING OF No. B-2 SET

No. sets to case	Net Wt. per case	Gross Wt. per case	Measurements
1	38 lbs.	60 lbs.	$21\frac{1}{2} \times 15\frac{3}{4} \times 6\frac{1}{2}$

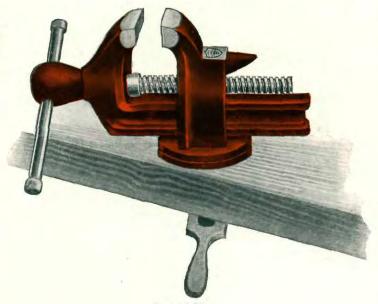




BONNEY IMPROVED GARAGE VISES

LARGE AND HEAVY FOR HARD USAGE





Swivel Base

These Vises have hardened tool steel jaws and swivel bases. The jaws have a particularly large range of openings. They are all machined accurately to a close fit and have steel lathe cut screws. The swivels are operated by a malleable iron handle which works on a nut. The adjustment of the swivel base can be made in any position and is accurate and positive.

The vises are finished in a bright maroon enamel and the jaws and anvils are highly polished.

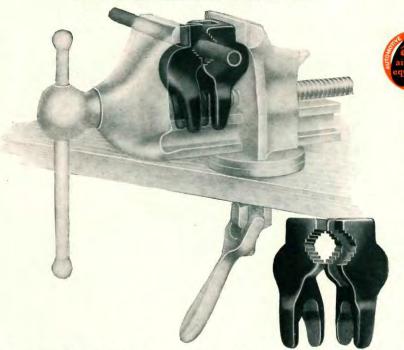
No.	Length of Jaw	Opens, inches	Weight	Price, each
250	$\frac{2^{1}}{2}$	$3\frac{1}{2}$	10 lbs.	\$2.25
300 350	$\frac{3}{3\frac{1}{2}}$	$\begin{array}{c} 4\\4\frac{1}{2}\end{array}$	16 " 21 "	3.50 4.75
400	4	5	261 "	6.00

When desired, these vises are packed one in a wooden box, ready for reshipment.









In connection with the Garage Vises, illustrated and described on the preceding page, we have made a very important addition which adds greatly to the usefulness of the vise, viz., a line of pipe-holding attachments that will take pipe and round iron in sizes shown on the table given below.

These attachments, which are shown in the illustration, are semisteel castings of just the right mixture for the use to which the attachments are put.

As there is a definite size and shape for each size vise, they can be easily and quickly inserted and removed from the vise.

The shape of the jaw is such that the rod or pipe is held rigid without marring the surface.

The usefulness of these attachments are self-evident, and every order for Garage Vises should carry with it an order for Pipe Attachments, as they will prove a splendid selling feature with the trade.

SCHEDULE OF PRICES AND SIZES

No.	Takes Pipe	Takes Round Iron	Price each
250PA	½" to 1½"	1" to 13"	\$0.60
300PA	$\frac{1}{8}''$ to $1\frac{3}{4}''$	1 to 2"	.90
350PA	1" to 2"	1" to 21"	1.25
400PA	1" to 21"	1" to 23"	1.50

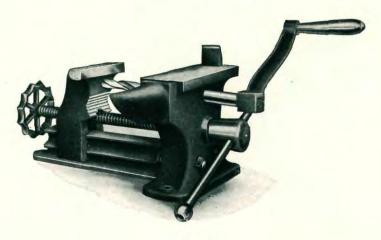








THE GIPSY COMBINATION ANVIL VISE AND DRILLING MACHINE



(Patented)

The Gipsy Vise combines four different tools—Anvil, Straight Jaw Vise, Pipe Vise and Drill Press. It is the handiest tool made, for general repair work on the farm or ranch. Also a very useful tool for general repair work in garages.

The Anvil is 7 inches high, 12 inches long and has 4 inch face. The Vise Jaws are $5\frac{1}{2}$ inches wide and open 8 inches. The Pipe Jaws have a capacity from $\frac{1}{2}$ inch to 2 inch pipe. The Drill Spindle is made for square shank drills and can be removed when not in use.

Price Each - - - - \$10.00

Weight each, 52 lbs. Finished in green enamel.

EXPORT PACKING

No. to Case	Net Weight	Gross Weight	Measurements
2	104 lbs.	125 lbs.	22" x 9½" x 15½"





Pages

INDEX

WRENCHES

Adjustable "S" Wrenches							8, 9
Always Ready Wrenches							44
Automobile Wrenches .							12
Baby Vixen Wrenches .							45
Combination Pipe and Nut	Wı	ren	che	es			10-11
Combination Pliers Wrench	es						13
Crocodile (Alligator) Wrenc	hes	8					46, 47
Drop Forged Wrenches .							20-39
Finishes of Drop Forged W	ren	che	es		•		15
Malleable General Purpose	W	ren	che	es			40, 43
Malleable Machinery Wrene	che	s					39, 41
Screw (Monkey) Wrenches							12
Sets of Wrenches for Auton	ob	ile	Us	se			17-19
Stillson Wrenches							6, 7
Thin (Stamped Steel) Wren	che	es					14
Vixen Wrenches							45

VISES

Bonney Vises												50
Bonney and Cha	mp	io	n (Con	abi	nat	ion	Se	ets	Vis	ses	51-55
Champion Vises												48
Farmers' and Ga	rag	ge	Vis	ses								56
Gipsy (Anvil, Vis	e a	ine	1 I	ril	ling	g N	Tac	hir	ie)	Vis	ses	58
Lehigh Vises .												49
Pipe Holding Att	tac	hn	nen	ts	for	Ga	ıraş	ge	Vis	es		57
Standard Vises												51

